The Major and the Minor

On Political Aesthetics in the Control Society

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I hereby declare that this thesis has not been and will not be submitted, in whole or in part, to any other university for the award of any other degree.

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Abstract

This thesis examines the crucial diagnostic and productive roles that the concepts of minor and major practice, two interrelated modes of cultural production set out by Gilles Deleuze and Félix Guattari in *Kafka: toward a Minor Literature* (1975), have to play in the present era of ubiquitous digital technology and informatics that Deleuze himself has influentially described as the control society. In first establishing the conditions of majority and majority, Deleuze and Guattari's historical focus in *Kafka* is the early twentieth century period of Franz Kafka's writing, a period which, for Deleuze, marks the start of a transition between two types of society – the disciplinary society described by Michel Foucault in *Discipline and Punish* and the control society that is set apart by its distribution, indifferent technical processes and the replacement of the individual with the dividual in social and political thought. Because of their unique conceptual location, at the transition between societies, the concepts of majority and minority present an essential framework for understanding the impact of ubiquitous digital technology and informatics on cultural production in the twentieth century and beyond.

In order to determine the conditions of contemporary major and minor practice across the transition from disciplinary to control societies, the thesis is comprised of two interconnecting threads corresponding to majority and minority respectively. Drawing on the theoretical work of Deleuze and Guattari, Friedrich Kittler and Fredric Jameson alongside pioneering figures in the historical development of computation and informatics (Alan Turing, Claude Shannon and others), material observation on the technical function of digital machines, and the close examination of emblematic cultural forms, I determine the specific conditions of majority that emerge through the development of the contemporary control era. Alongside this delineation of the conditions of majority I examine the prospective tactics,

corresponding to the characteristics of minority set out by Deleuze and Guattari in *Kafka*, which emerge as a contemporary counter-practice within the control-era. This is carried out through the close observation of key examples of cultural production in the fields of literature, film, video, television and the videogame that manifest prospective tactics for a control-era minor practice within the overarching technical characteristics of the control-era major. Through an examination of these interrelated threads the thesis presents a framework for both addressing the significant political and cultural changes that ubiquitous computation effects in constituting the contemporary control society and determining the ways in which these changes can be addressed and countered through cultural production.

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Introduction: On the Ubiquity of the Digital

In one of the final notes to his 2007 book *Gamer Theory* McKenzie Wark makes the claim, referring to his modification of a quote from the blogger K-Punk, that "gamespace replace[s] the now archaic term cyberspace."[1] This claim is fascinating primarily because of the way it dismisses so easily as "archaic" a cultural-theoretical term that is amongst the most widely used of the computer age. The implications of both Wark's dismissal and his suggested alternative, elaborated throughout *Gamer Theory*, are central to the work that follows in this thesis. If cyberspace is the distinct 'space' in which electrically mediated interactions take place, defined by Bruce Sterling as "the place between the phones" in a telephone conversation, then Wark's gamespace is the next historical 'space', the 'space' in which material objects and information become inseparable.[2] When mediation becomes expanded, through digital technology, to the point where machines are able to both record and compute input from all sources of information, from lines and distances to trajectories, from images to sound to video and from the genetic makeup of the human body to the affective, formal constituents of narrative, then a distinct conceptual 'space' in which such mediation takes place becomes unnecessary. Gamespace is, in effect, cyberspace and 'real' space combined. The political, cultural and theoretical implications of this transition are complex and problematic, underpinning a number of critical approaches to new media that follow the work of Friedrich Kittler in stressing the material aspects of media technologies, the immutability and transformability of digital data

[1] McKenzie Wark, *Gamer Theory* (Cambridge, London: Harvard University Press, 2007), note to paragraph 223. This book eschews pagination in favour of sequentially numbered paragraphs, and as such any reference to it hereafter will be to these numbers. K-Punk's original comment reads "[w]hat do we look like from cyberspace? What do we look like *to* cyberspace?" K-Punk. 'Cartesianism, Continuum, Catatonia: Beckett', http://k-punk.abstractdynamics.org/archives/2006_03.html. Last accessed 21/07/09.

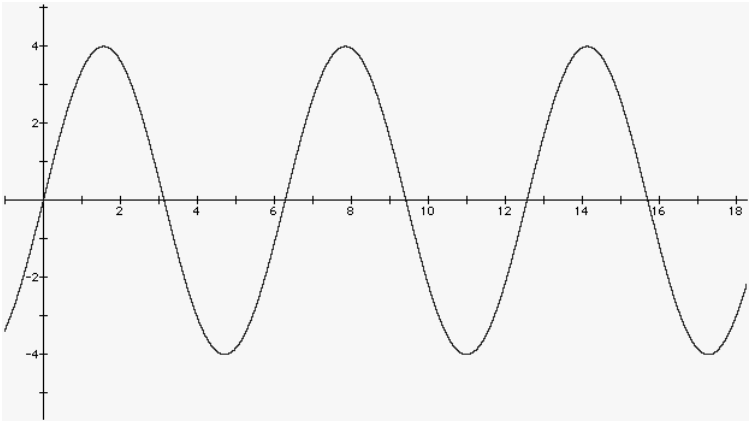
[2] Bruce Sterling, *The Hacker Crackdown* (London: Viking, 1993), p.11.

and the purely formal character of code over or alongside aesthetics, deconstruction or other modes of textual 'reading.'[3]

The digital, as a technique for information storage, processing and transfer, is radically distinct from the analogue techniques that precede it. As Wark remarks:

> [w]here once analogue and digital maintained an ambiguous and continuous…relation to each other and the world, the digital now distinguishes itself sharply from the analogue, subsuming the analogue difference under the digital distinction. This is a transformation not merely in forms of communication or entertainment, not even in forms of power or of topos, but a change in being itself.[4]

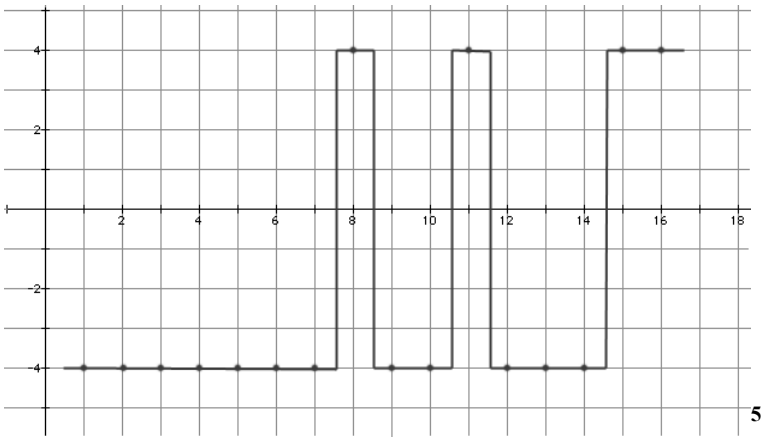
Where analogue mediation converts variations of, for example, air pressure directed into a telephone mouthpiece into corresponding variations of electricity for transmission, digital mediation converts any input into series of discrete states, eliminating continuous variation in order to greatly decrease the probability of errors. Where analogue systems represent actions as lines, unbroken flows of, for example, electricity over components, digital systems code all input as discrete alternations.



Analogue Signal

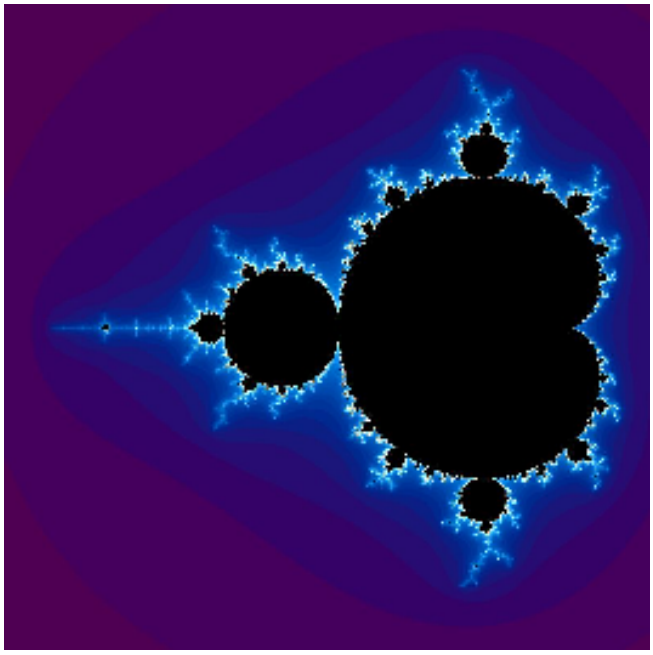
[3] Besides Kittler see, for just a few examples of this technically rigorous move in media theory, the work of Espen Aarseth, Alexander R. Galloway, N. Katherine Hayles, Wendy Hui Kyong Chun, Geert Lovink, Lev Manovich, Eugene Thacker and Hartmut Winkler.

[4] Wark, *Gamer Theory* paragraph 081. 'Analog' changed to 'analogue' by me throughout.



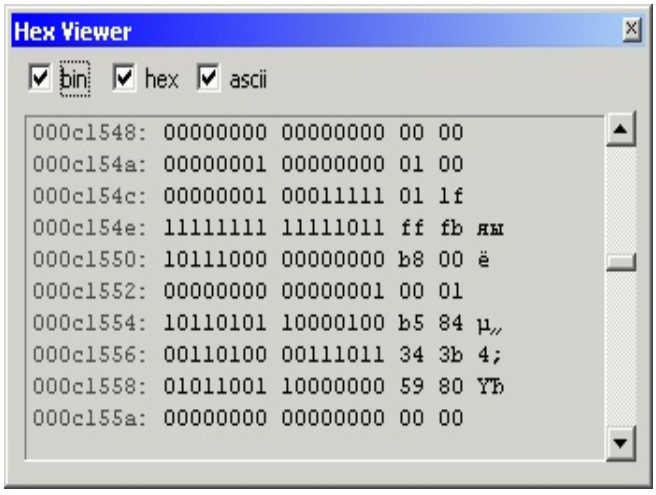
Digital Signal

The comprehensive replacement of the analogue with the digital as depicted by Wark underpins a significant movement in culture and politics today, the movement from the possibility of interpretation to the ubiquity of execution. Where the analogue produces a form that can be viewed as art even when data is its subject, the digital produces data even when art is its subject.



Mandelbrot fractal: digits into analogue representation

[5] 'Analog vs. Digital', http://www.tricojvs.k12.oh.us/eng/resources/webdesign/andig/andig.html, last accessed 08/09/08.

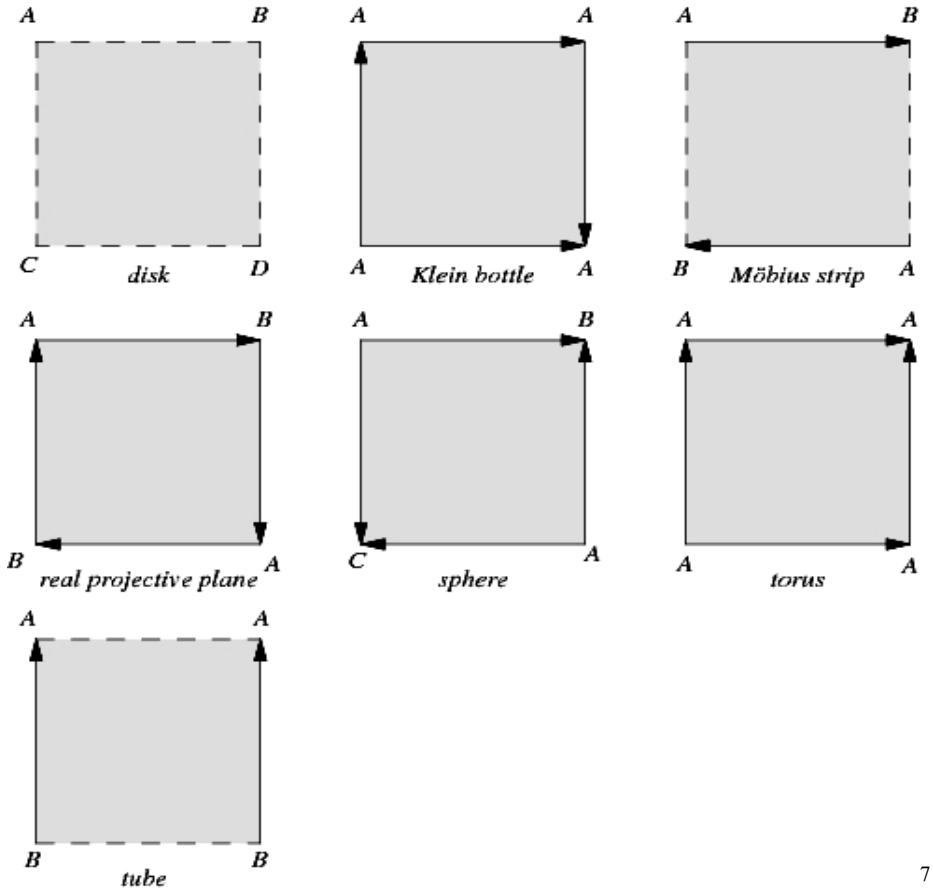


Video still represented as binary and hexadecimal numbers: analogue representation into digits

The following thesis is concerned with the social, political and economic implications of the digital, and its associated technical standards, for the forms of cultural production that are emblematic of the contemporary era.

In the light of the crucial analogue/digital distinction, from variation to the on/off state that underpins all actions, it is notable that the formal model relating to the 'space' of gamespace in Wark – the world that is mapped over, classified and defined by digital information – is topology, the mathematical study of qualitative formal properties that are retained through deformations, but not breakages. The most common example is that of the coffee cup and the doughnut, both made of BluTack, which are topologically but not geometrically identical because one can be reformed into the other through twisting, squashing and bending. Both are registered in terms of their homogeneity rather than their difference. In a topological apprehension of space the quantitative registering of formal variations is ignored in favour of the number of holes. Topology, as both a formal model of distribution (the network) and a spatial analogue for the cultural impact of the digital, is crucial for Wark specifically because of this rendering-homogenous. In mathematics topology is used

to "abstract the inherent connectivity of objects while ignoring their detailed form."[6] It provides a way in which multiple distinct objects can be recorded and analysed on a single model, as indicated by the following diagram:



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In these topological squares parallel solid lines join each other in the direction shown by the arrows, corners sharing the same letter represent a single point in physical space and broken lines represent edges that remain free. The analogue between these squares, which record multiple, qualitatively different shapes onto a single quantitative model, and the process of ubiquitous digitisation which enacts a similar process on cultural objects is emblematic of the way in which, in gamespace, the establishment of a single unambiguous language that can serve to record all information is a foundational process.

[6] See http://mathworld.wolfram.com/Topology.html. Last accessed 09/08/08.
[7] Martin Gardner, *Martin Gardner's Sixth Book of Mathematical Games from Scientific American*, reproduced at http://mathworld.wolfram.com/Topology.html, last accessed 09/08/08.

The requirement for this single, unambiguous language for information can be traced back to Claude Shannon's *A Mathematical Theory of Communication* of 1948, which outlines a meaning-indifferent approach to the technical handling of information that is a definitive feature of Wark's topological gamespace:

> Frequently the messages have *meaning*; that is, they refer to or are correlated according to some system with certain physical or conceptual entities. These semantic aspects of communication are irrelevant to the engineering problem. The significant aspect is that the actual message is one selected from a set of possible messages. The system must be designed to operate for each possible selection, not just the one that will actually be chosen since this is unknown at the time of design.[8]

In Wark's application of topology all digitally-mappable objects, both physical and cultural, are indifferently coded as identical information, the extension of Shannon's communication theory into everyday life. Following Shannon, technical definitions of information or data are meaning-ambivalent. In the production of meaning, or output, it is the relation of data and algorithms alone that is important for the mode of communication derived from Shannon. As an extension of this process, a single fundamental technology can be used to carry out multiple, highly distinct tasks from playing the stock market to the waging of war. The same user action of pressing keys on a keyboard, or employing another input device such as a mouse, makes things happen. This is why cyberspace, as defined by William Gibson and Bruce Sterling in the 1980s as the 'space' between sender and receiver in a communication chain, becomes an archaic term. When it becomes possible to mediate, map and store as data all space and all bodies it is no longer possible to define a distinct space for the 'cyber'. It is only necessary to look at the depictions of computer and internet use in William Gibson's 1984 novel *Neuromancer*, in which the term becomes formalised, compared to those in his more recent *Pattern Recognition* (2003) for a manifestation

[8] Claude Shannon and Warren Weaver, *The Mathematical Theory of Communication* (Urbana: University of Illinois Press, 1949), p.3.

of the difference between cyberspace and gamespace.[9] Where the earlier novel both defines and reflects cyberspace as a cultural entity, the later one presents a gamespace in which the networked digital computer begins to make digital information, experience and material reality inseparable.

In *Neuromancer* cyberspace is famously portrayed as a 3-D graphical representation of data, a virtual space into which the user must 'jack' using temple-mounted dermatrodes.[10] Whilst jacked in, the user has no perception of the 'real' space in which they are present while interfacing with the machine. Within the 'matrix' of cyberspace the user navigates in a what seems to be a first-person perspective, interfacing with the colourful blocks that represent data banks if they have the right level of 'ice' to crack their security. All digitised information is clearly visible and physically approachable in this virtual environment. Interface is a question of immersion, sensory coupling rather than the looking at a screen, hearing through speakers and manipulation of controls at a remove that characterises contemporary computer use.

The protagonist Case's first connection to cyberspace within the diegesis of *Neuromancer* is not his first ever connection but a return. He is a master hacker afflicted with nerve damage, caused by disgruntled former employer, which has prevented him from jacking in for two years prior to the novel's start. This first return

[9] Gibson himself claims to have used the term 'cyberspace' without much thought to its constituent elements of 'cyber' and 'space' or their implications, leaving it to Bruce Sterling to transport it into the contemporary context. See Mark Neale's documentary film *No Maps for these Territories* (2000).

[10] The introductory voiceover contemptuously described by the novel's protagonist Case as a "kid's show" describes cyberspace as a "graphic representation of data abstracted from the data banks of every computer in the human system." William Gibson, *Neuromancer* (London: HarperCollins, 1993), pp.67-68. As Alan Liu rightly points out, the passage from which this quote is taken is the most commonly referenced description of Cyberspace in *Neuromancer*, despite the fact that the technically-expert hacker protagonist dismisses it. "In one sense, of course, Gibson's novel *is* about a Camelot of cyberspace in which his protagonists move like knights, or samurai, of pure light. But it is significant that the description is uttered in quotation marks in the novel. It is not the voice of Gibson or of one of his characters." Alan Liu, *The Laws of Cool* (Chicago, London: The University of Chicago Press, 2004), p.336.

to cyberspace in *Neuromancer* is notable because it is described as a spectacular, real-time process of flowing and unfolding rather than a binary on-off state:

> A grey disk, the colour of Chiba sky.
> *Now –*
> Disk beginning to rotate, faster, becoming a sphere of paler grey. Expanding –
> And flowed, flowered for him, fluid neon origami trick, the unfolding of his distanceless home, his country, transparent 3D chessboard extending to infinity. Inner eye opening to the stepped scarlet pyramid of the Easter Seaboard Fission Authority burning beyond the green cubes of Mitsubishi Bank of America, and high and very far away he saw the spiral arms of military systems, forever beyond his reach.[11]

The difference between this and Cayce Pollard's first diegetic interaction with the internet in Gibson's more recent *Pattern Recognition* is marked, and indicative of the fading of cyberspace into a space in which the digital is embedded as part of the everyday:

> In the flat's main room, she finds that Damien's faithful Cube is on, but sleeping, the night glow of its static switches pulsing gently…She seats herself in his high-backed workstation chair and clicks the transparent mouse. Stutter of infrared on the pale wood of the long trestle table. The browser comes up…The front page opens, familiar as a friend's living room.[12]

Where *Neuromancer's* digitally mediated space is a "hallucination", in *Pattern Recognition* it is accessed as part of daily routine that has shaped the environment that contains it. Interior design incorporates the computer terminal, for which there is a specially-designed chair. The "transparent mouse" that provides the user's interface with the system is itself the product of meticulous design that goes beyond functionality into the aesthetics of the combined home-workplace. The computer is never turned off, only on standby, where in *Neuromancer* the process of jacking in involves the connection of nervous system to machine. Whilst jacked in to cyberspace, Case is detached from his body, which is "somewhere", "laughing, in a white painted loft", with "distant fingers caressing the deck, tears of release streaking

[11] Gibson, *Neuromancer*, pp.68-69.
[12] William Gibson, *Pattern Recognition* (London: Penguin, 2004), p.3. Ellipses mine.

his face,[13] for Cayce, in *Pattern Recognition* the familiarity of the "friends living room" in which she sits is immediately reproduced in that of the browser window.

If the interface and degree of immersion between human user and digital 'space' is one telling distinction between *Neuromancer* and *Pattern Recognition*, and between cyberspace and gamespace, this is only made clearer by an examination of what the characters actually do when logged on. As Wendy Hui Kyong Chun notes, "[i]n Cyberspace, Case runs into no other people – or perhaps more precisely, no other disembodied minds. In the matrix, Case communicates with artificial intelligences, computer viruses, and computer constructs."[14] By contrast, Cayce's first port of call is an internet forum, "automatically scanning titles of the posts and names of posters…looking for friends, enemies, news."[15] After checking the forum, "one of the most consistent places in her life", she goes on to check her email, which is three-quarters spam. [16] The difference between the texts – and the periods they represent – is not as simple, however, as the internet connecting people to other people in *Pattern Recognition* and to data alone in *Neuromancer*. The distinction lies not purely in what the characters do with the digital, but in the coefficient between what they do and what they believe they are able to do. Case is a hacker, a "cowboy" of cyberspace who is able to crack any security and access any information in a matrix that is reserved for an elite class possessed of specialist technical knowledge.[17] Cayce, on

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[13] Gibson, *Neuromancer*, p.69.
[14] Wendy Hui Kyong Chun, *Control and Freedom: Power and Paranoia in the Age of Fiber Optics* (Cambridge: The MIT Press, 2005), p.191.
[15]Gibson, *Pattern Recognition*, p.4. Ellipses mine.
[16] *Ibid.*
[17] See Sam Williams, *Free as in Freedom: Richard Stallman's Crusade for Free Software*, especially Chapters 1 and 2, and Appendix B, for an idea of the close proximity of the term 'hacker' with 'official', often university-affiliated programmers in the 1970s and early 1980s: "It is a testament to the original computer hackers' prodigious skill that later programmers, including Richard M. Stallman, aspired to wear the same hacker mantle. By the mid to late 1970s, the term 'hacker' had acquired elite connotations. In a general sense, a computer hacker was any person who wrote software code for the sake of writing software code. In the particular sense, however, it was a testament to programming skill. Like the term 'artist,' the meaning carried tribal overtones. To describe a fellow programmer as hacker was a sign of respect. To describe oneself as a hacker was a sign of immense personal confidence. Either way, the original looseness of the computer-hacker appellation diminished as

the other hand, uses the internet to contact other people through forums and email, but the daily spam she receives in her inbox results from processes that are executed by exactly the kinds of "artificial intelligences, computer viruses and computer constructs" that Case encounters in *Neuromancer*, set to commercial purposes. The portrayal of networked computer use in the two novels respectively presents the 1984 and 2003 user's relationship with computers and the internet, and it is the progression between these relationships, and the cultural impact of this progression, that is of significant interest in this thesis.

Kittler, in a conversation with Paul Virilio, supports a contemporary digital ecology that is definitive of the 'Kassel School' of German media theory, diverging from Marshall McLuhan in placing technical media not as an extension of their human users but as a distinct, if intersecting, category.[18] For Kittler, the relationship between user and computer lies in the extension of *Neuromancer's* technical, specialist's model into *Pattern Recognition's* ubiquitous, seamless embedding of the digital in the world:

> As soon as you find yourself under [the operating system] UNIX, from the start, you're merely one person amidst three-hundred programs, of which you know ten at best. So, during the first few months you get to know twenty programs, then forty, finally a hundred. You then discover that you're not alone any more. Rather you live with a hundred programs, of which you only need twenty…Today, and tomorrow, the term "society" should include people and programs.[19]

Perhaps it is this society of people *and* programs, or material, biological life and data, which is definitive of gamespace, whereas the idea of a distinct cyberspace places the programs and data as distinct from the cultural lives of their users. Alongside this change, the relationship between users and computers has expanded from a select

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computers became more common." http://oreilly.com/openbook/freedom/appb.html. Last accessed 21/09/08.

[18] See Geert Lovink's conversation with Hartmut Winkler, 'The Computer: Medium or Calculating Machine?' for a discussion of the prevailing schools in German media theory. Geert Lovink, *Uncanny Networks* (Cambridge, London: The MIT Press, 2004), pp.186-195.

[19] Paul Virilio and Friedrich Kittler, 'The Information Bomb', ed. John Armitage, *Angelaki* vol.4 no.2 (1999), p.85.

class armed with technical expertise about a small body of machines and programs, in the 1970s and early 1980s, to a mass whose relationship to their machine is one of reliance and convenience but relative technical ignorance.

For Kittler there must be a critical awareness of the situation whereby the machinic aspects of data and hardware are obfuscated, through anthropomorphism, from user-computer relationships as they become ubiquitous in contemporary culture. Addressing a mode of media (or cultural) theory that postulates the internet as a rhizomatic utopia, Kittler states in an interview with John Armitage that:

> I must say that one thing that I find terrible nowadays is that people continue to imagine that the Internet is the means by which they themselves are linked to others world-wide. For the fact is that it is their computers that are globally linked to other computers. Hence the real connection is not between people but between machines.[20]

In *Pattern Recognition* the immersive, virtual-reality computation of *Neuromancer* has not been overturned, but rather normalised into a part-illusory relationship of command between user and machine. When the cube is noted to be "sleeping" in the opening excerpt for *Pattern Recognition*, for example, a crucial aspect of this after-cyberspace is evoked; the habitual persistence of the human user in naturalising computer hardware and software, embedding them and thereby making them disappear into the background of the familiar as they become increasingly ubiquitous.[21] Eric S. Raymond notes, of the phenomenon whereby hackers use anthropomorphisation, making statements such as "the protocol handler got confused" in addressing computer functions, that:

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[20] John Armitage, 'From Discourse Networks to Cultural Mathematics: an Interview with Friedrich A. Kittler', *Theory Culture and Society* vol.23 nos. 7-8 (December 2006), p.35.

[21] "Such a disappearance is a fundamental consequence not of technology, but of human psychology. Whenever people learn something sufficiently well, they cease to be aware of it. When you look at a street sign, for example, you absorb its information without consciously performing the act of reading... Computer scientist, economist, and Nobelist Herb Simon calls this phenomenon 'compiling'; philosopher Michael Polanyi calls it the 'tacit dimension'; psychologist TK Gibson calls it 'visual invariants'; philosophers Georg Gadamer and Martin Heidegger call it 'the horizon' and the 'ready-to-hand', John Seely Brown at PARC calls it the 'periphery'. All say, in essence, that only when things disappear in this way are we freed to use them without thinking and so to focus beyond them on new goals." Mark Weiser. 'The Computer for the 21st Century', draft of article for *Scientific American*, http://www.ubiq.com/hypertext/weiser/SciAmDraft3.html, last accessed 22/09/08.

> As hackers are among the people who know best how these phenomena work, it seems odd that they would use language that seems to ascribe consciousness to them… The key to understanding this kind of usage is that it isn't done in a naive way; hackers don't personalize their stuff in the sense of feeling empathy with it, nor do they mystically believe that the things they work on every day are 'alive'. To the contrary: hackers who anthropomorphize are expressing not a vitalistic view of program behavior but a mechanistic view of human behavior.[22]

If the human user now engages in a naturalisation of computers, this is in counterpoint to the way that, in gamespace, the digital reduces even biological life to data and routines.[23] In *Pattern Recognition* it is notable that Cayce's interaction with the internet is not only everyday but procedural, or algorithmic; "Deletes spam. Sips the tea…"[24]

Eugene Thacker, in his introduction to Alexander Galloway's *Protocol*, evokes the early 1980s computer culture that produced *Neuromancer* through reference to Disney Studio's 1982 film *Tron*. After quoting a significant exchange of dialogue in cyberspace between the user Flynn and the program Tron,[25] from which the film takes its title, Thacker notes that:

> The development of the personal computer, along with computer networks, has had a profound, stratified impact on the way in which social, political and economic life is experienced. Recent discussions…are all ways of attempting to understand how social change is indissociable from technological development (research, design, use, distribution, marketing, naturalisation, consumption) – though not determined by it.[26]

Finding an appropriate critical response to ubiquitous digitisation is dependent on an approach that considers the technical, the cultural and the political as indissociable. After cyberspace, the digital intersects with the world of users in ways that make a

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[22] Eric R. Roberts, 'Anthropomorphisation', http://www.catb.org/~esr/jargon/html/anthropomorphization.html, last accessed 21/09/08. Ellipses mine.

[23] Eugene Thacker has done much to theorise the ever-increasing proximity between biological life and information technology in his books *Biomedia* (Minneapolis: University of Minnesota Press, 2004) and *The Global Genome* (Cambridge: The MIT Press, 2005).

[24] Gibson, *Pattern Recognition*, p.5.

[25] *Flynn*: …you guys know what it's like, you keep on doing what it looks like you're supposed to be doing, no matter how crazy it seems.
Tron: That's the way it is for programs, yes, but –
Flynn: I hate to disappoint you pal, but most of the time that's the way it is for users too.

[26] Eugene Thacker, 'Protocol is as Protocol does', foreword to Alexander R. Galloway, *Protocol* (Cambridge, London: The MIT Press, 2004), p.xii.

clear causal distinction between the two impossible. Because of this it becomes necessary to identify and address ways in which the concepts that underlie the technical function of computers begin to appear in and transform social and cultural life. Kittler, reflecting on this process, recalls that "as Heidegger wrote in his essay on Parmenides, the ancient Greek philosopher who stimulated his thought on the typewriter, whether or not we personally ever use the typewriter is not important. What is important is that all of us are thrown into the age of typewriting, whether we like it or not."[27] There are a number of scholarly books, written in the 1990s, that address the relationship between new media technologies and narrative. Jay David Bolter's *Writing Space* (1991), George Landow's *Hypertext* (1992) and later edited collection *Hyper/Text/Theory* (1994), Espen Aarseth's *Cybertext* (1997) and Janet Murray's *Hamlet on the Holodeck* (1997) are notable examples of this type of work. In each instance the ways in which these new technologies not only create new users and new possibilities but throw non-users and older media into the world of computers, affecting the already-existing media that predate them, remains relatively untouched.

For Wark the crucial medium of gamespace is the videogame because it relates fundamentally to the digital on/off state and to topology in contrast to a preceding topography. In making this claim, Wark makes it clear that the ubiquity of digital media necessitates a reconsideration of the ways in which older media are understood, because it renders all possible difference technical, or *indifferent*.

> The game has colonised its rivals within the cultural realm, from the spectacle of cinema to the simulations of television. Stories no longer opiate us with imaginary reconciliations of real problems. The story just recounts the steps by which someone beat someone else – a real victory for imaginary stakes. The only original screen genre of the early twenty-first century is not called "reality TV" for nothing.[28]

[27] Armitage, 'From Discourse Networks to Cultural Mathematics', p.29.
[28] Wark, *Gamer Theory,* paragraph 007.

The digital does not destroy or replace older analogue media but "colonises" them, altering the ways in which they are both directed and experienced and, ultimately, making it both possible and necessary to envisage them in new ways. Wark's formulation of a gamer theory, which is not a theory of games but a theory of the mediated world that is now redefined by games as the emblematic cultural form of the digital, is "not a question of adding games as the tail end of a history of forms but of rethinking the whole of cultural history after the digital game."[29]

This last statement from Wark is an essential methodological criterion for this thesis. Aarseth's *Cybertext*, a book that does much to usefully formalise the transferable problems that specifically digital texts pose to existing literary theory, is restricted to a body of forms – hypertext fiction, MUD's and text adventures – that are already obsolete, having left barely a trace on the current field of digital media. This is indicative of the problem that previous attempts at a theory of specific forms after the advent of ubiquitous digitisation face; the risk of falling victim to the conditions of Moore's law, which states that computing power, and thereby the potential formal properties of computer-effected media, doubles every eighteen months. Furthermore, in attempting to define a systematic language with which to address digital media, such heavily formalised works as *Cybertext* and Lev Manovich's *The Language of New Media* (2001) fail to engage with the political implications of the technology they define. It is necessary, in implementing a theory of digital and narrative artworks, to take an approach that understands cultural objects that originate both before and after the emergence of the personal computer in terms of the fundamental characteristics of computation – storage/classification, processing and execution. This is not only a methodological and critical approach but a political and formal one.

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[29] *Ibid.*, paragraph 225.

Taking seriously the processes of abstraction – the absolute coding of objects and experience as data – that Wark examines in *A Hacker Manifesto* and that forms the basis of the emergence of gamespace, this thesis identifies prospective responses to the cultural impact of ubiquitous digitisation that are able to resist, or better employ, these processes. To this end, the notion of major and minor practice that Gilles Deleuze and Félix Guattari develop in their 1974 book *Kafka: toward a Minor Literature* emerges as a crucial framework. In this work Deleuze and Guattari set up a model of counter-practice or minor literature that emerges not against or in resistance to its dominant (or major) counterpart but within and beyond it. This notion, alongside the fundamental connection Deleuze and Guattari make between technology, politics and major culture, is essential to notions of contemporary counter-practice in the present era of digital ubiquity. In order to work through the development of ubiquitous digitality from the basis of major and minor practice the thesis is formed of three parts. Part One is titled 'The Major and The Minor', Part Two 'Beckett and Contemporary Minor Practice' and Part Three 'Minor Practice and the Commercial Major'. Each of these parts is made up of several chapters which examine an aspect of the relationship between major and minor practice and computation as they develop through the twentieth century.

Part One of the work, 'The Major and the Minor', examines the ways in which Deleuze and Félix Guattari's concepts of the major and the minor can usefully function as a model for counter-practice in light of ubiquitous digitisation. Following this, Chapter 1 is focused on the status of the major in the present era, which is initially examined through Deleuze's 'Postscript on Control Societies.' This text, in which Deleuze addresses the role of information technologies in city planning, law,

medicine and sports preferences ("*surfing* has taken over from all the old *sports*"[30]) amongst other areas, develops Michel Foucault's analysis of the nineteenth and early twentieth century disciplinary societies through the introduction of some crucial distinctions between a society whose modes of production are predominantly defined by the computer and those that correspond to older types of machine. Despite its brevity, Deleuze's essay is extremely helpful in determining the significant differences that major cultural and political practice manifest through expanding digitisation. Deleuze describes an ongoing diffusion of power that moves first from the body of the sovereign to the institutions of disciplinary societies, as Foucault examines in *Discipline and Punish*, and that continues to a point where it is no longer present in institutions but distributed through the information technologies that connect institution to home. Instead of the ongoing process of discipline, preparation, training and examination that creates docile bodies in Foucault's nineteenth century, it is the identical actions and methods of data input, processing and output, connecting the practices of the workplace and the school to those of the home and of 'leisure time', that manifest the invisible working of power in Deleuze's late twentieth century. In the control society, with its ever-present, always-connected network of information technologies, it is the institutions that diffuse, as the sovereign did before them, into the function of the ubiquitous machines that enable both work and play.

Chapter 1 of the thesis goes on to identify three crucially interwoven areas that define the contemporary, information-technological major: code, narrative and visuality. Each of these three areas has a more or less abstract relationship with three significant components in computation; code, software and visuality. Code, in this instance, is the stable factor that does not change from technical to cultural

[30] Gilles Deleuze, *Negotiations*, trans. Martin Joughin (New York: Columbia University Press, 1995), p.180.

manifestation – hence Kittler's identification of low-level code as the Lacanian 'real' of computation, and is the invisible formal language that makes its overlying processes possible.[31] Software, as the user-end interface that dresses abstract code as functional tool, is the 'narrative' of the relationship, allowing processes to be understood. Finally, the user-readable output presented by graphics engine and computer monitor is the visual dimension of computation, maximising the accessibility and user-satisfaction of its underlying processes.

The first of these areas, code, is essential in considering the ways in which concepts and characteristics are transferred from computation into major cultural-political languages and practices. Code is a language that, while consisting of syntax and grammar, differs crucially from natural languages due to its executability. Code languages allow the human programmer to make a computer, which only 'reads' binary digits as electrical difference, execute actions. The indifference and technical nature of this process, where language directly translates into action, is a crucial allegory in understanding the ways in which contemporary major culture functions both politically and economically. Geert Lovink and Florian Schneider's notion of "Info-Empire" is helpful here in accounting for the global political transformations addressed by Michael Hardt and Antonio Negri, in *Empire*, to the technical function of the machines that enable them.[32] Where Lovink and Schneider focus on the network form itself, however, I situate the kernel of the relationship between power and computation, both literally and allegorically, in the executive functionality of the individual computer.

The second, interwoven aspect of the contemporary major examined in Chapter 1 is the role of narrative in the cultural normalisation of ubiquitous code and data. The

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[31] See Friedrich Kittler, 'The World of the Symbolic: A World of the Machine', *Literature, Media, Information Systems*, ed. John Johnston (Amsterdam: G + B Arts International, 1996), pp.130-146.
[32] Geert Lovink and Florian Schneider, 'Notes on the State of Networking', http://www.makeworlds.org/node/100, last accessed 23/3/09.

examination of narrative moves through the technical definition of story proposed in Vladimir Propp's *Morphology of the Folktale*, and the later developments of this process through computation, into Frederic Jameson's analysis of the connections between productive, political and narrative modes in *The Geopolitical Aesthetic*. In establishing a connection between code and power in the early part of this thesis it becomes apparent, primarily through the writing of the military strategists John Arquilla and David Ronfeldt, that the role of informatically formalised narrative has a crucial resonance with the ideological function of the contemporary major. Chun's work on the analogous relationship between software and ideology forms a significant theoretical backdrop to this section, which examines the diffusion of informatic control into narrative cultural objects as a significant factor in the contemporary major.[33] In examining the turn in popular narrative media, such as the feature film alongside the emergence of widespread computer use, it becomes apparent that there is an executive, structural function of story in the late twentieth century that differs from earlier decades of the cinema – a significant manifestation of the diffusion of power that occurs under the conditions of the control society

The third contemporary major element derived from digital technology examined in Chapter 1 is the presence of a visual layer to mask underlying informatic structures. At the user level this is most obviously seen in the relationship between code, software and Graphical User Interface in desktop computing, and its political and cultural manifestation has broad implications for the relationship between image and underlying informatics in narrative media that is a definitive aspect of the contemporary major. This section is closely related to both Kittler's essays 'Protected Mode' and 'There is No Software' and Chun's work on software and ideology, demonstrating as it does the way in which commercial software creates users with no

[33] Wendy Hui Kyong Chun, 'On Software, or the Persistence of Visual Knowledge', *Grey Room* 18 (Winter 2005), pp.26-51.

interest in underlying, technical function. The distributed manifestation of this process in narrative production and consumption, for example in the cinema, completes the distributed model of a contemporary major in the age of ubiquitous digitisation.

In Chapter 2 the three characteristics of minor literature that Deleuze and Guattari outline in *Kafka* are examined in terms of the same techno-historical movement traced onto the major in Chapter 1. Each of these characteristics forms the basis of a discussion of prospective contemporary counter-processes, from the technical definitions of noise and the virus to the newly political dimension of errant information in narrative to the relationship between scarcity of talent, technical virtuosity and hacking. Equally, each one of these ideas relates to the interplay of the three characteristics of the contemporary major outlined in the chapter before it – since, as Deleuze and Guattari specify, the minor always comes from within the major. It must be noted that throughout this thesis, technical terms examined in the opening chapters such as 'code' and 'hack' are deployed both literally and metaphorically in a way that might appear interchangeable. This is not to trade on any surface currency these terms might carry, or to add a layer of technical jargon to the discussion of cultural objects, but rather to stress the newly technical character of power, and by extension major cultural objects, in the contemporary major of the control society or gamespace.

Part One of the thesis concludes with a note on the role of critical writing in this digital major landscape of the control society. Here Wark's argument, made in the endnotes of *A Hacker Manifesto*, about the ways in which informatic culture enables a coding process upon seemingly radical theoretical writing such as that of Deleuze and Guattari serves as a backdrop for a broader discussion about the possibilities for a theoretical writing that avoids this abstraction into information-as-commodity. This

process can be seen as a secondary, but nonetheless important, reflection of the prospective character of minor practice – its ability to generate a critical dimension that is itself minor, resisting the processes of coding that are specific to what Wark calls the "academic and cultural marketplace".[34]

Part Two of the thesis consists of four chapters that examine the characteristics of minor practice defined in Chapter 2 through a specific, paradigmatic, example – the writing of Samuel Beckett. While Beckett's writing falls outside of the period of the fully-developed control society, there is a parallel between the development of his work and the development of the computer (and by extension the control era) that is fascinating in terms of considering emergent contemporary major and minor practice. In terms of this issue of periodisation, Kittler's concept of the discourse network, or *Aufschreibesysteme* (writing-down, or notation system), itself influenced by the Foucauldian notion of the archive,[35] is particularly useful in Chapter 3. Here, Kittler's methodology provides a framework for considering the cultural impact of a technical and aesthetic period or event outside of teleology or direct, causal connection. The two definitive periods set out by Kittler in *Discourse Networks 1800/1900* each collate a single writer, technology and definitive media-historical concept – Goethe, universal alphabetisation and the "kingdom of sense" in 1800, and Nietzsche, technical media and the "kingdom of pattern" in 1900. While the typewriter, with its discretisation of text, evokes the start of the movement towards the patterning and algorithms of digital culture for Kittler, the radical reprogrammability and executability of the computer represents a development within the discourse network of 1900 that is worth specific examination. Kittler places Kafka's bureaucratic worlds within the major framework of technically-enabled information technology in the

[34] McKenzie Wark, *A Hacker Manifesto* (Cambridge, London: Harvard University Press, 2004), note to paragraph 091. As with Wark's *Gamer Theory* this text is ordered through sequentially numbered paragraphs instead of pagination.
[35] See Armitage, 'From Discourse Networks to Cultural Mathematics', p.19.

early twentieth century. Following this process I place Beckett in a subsection of the 1900 network and examine the ways in which his work proceeds in parallel with the development of the computer. In this chapter I trace the development of computation alongside that of Beckett's writing, moving from Alan Turing's 'On Computable Numbers, with an Application to the *Entscheidungsproblem*' in 1936 (when Beckett was composing his algorithmic *Watt*) through the gradual emergence of hardware, software and graphical computation as Beckett produces increasingly formal, visual work.

Having established this connection between Beckett and computation, in Chapter 4 I move again through the three characteristics of contemporary minor practice first outlined in Chapter 2. Here I demonstrate the ways in which these characteristics appear in Beckett's work; deterritorialisation through noise, the politicisation of errant information in a body of work that appears apolitical at the level of content, 'scarcity of talent' alongside technical virtuosity, and finally a degraded relationship between underlying code and visuality. With each of these characteristics present in Beckett's writing, it becomes clear that it can act as a prospective model of minor practice which develops as the contemporary major does, alongside the technical and cultural development of computation.

After the discussion of Beckett and contemporary minor practice comes a note on Beckett and critical hypertrophy. Here I address a phenomenon in the field of Beckett criticism whereby the attempts of certain writers to locate a definitive critical paradigm in Beckett (most often nihilism) end up in experimental or 'creative' modes of writing that are far from their initial, hermeneutic intent both formally and in terms of content. Viewed in this light, Beckett's paradigmatic contemporary minor work provides a way of thinking through the problems of the encoding of academic writing

as informatic commodity that is discussed, though Wark's *A Hacker Manifesto*, in the note that concludes Part One of the thesis.

The final chapter of Part Two presents a significant prospect for the relationship between contemporary major and minor narrative by reading Beckett's work alongside the notion of informatic horror. This section foregrounds one of the crucial methodological aspects of the thesis; the critical interrelation of apparently distinct cultural objects that can only occur as a result of their abstraction, through the major processes of the control society, into indifferent information as materialised in the topological diagrams towards the start of this introduction. If, as Deleuze and Wark amongst others state, digitisation reduces all difference, and by extension all narrative acts, to the modulation of information, then the surface distinctions between formerly separate forms, genres and media require reconsideration.[36] Through an examination of Beckett's *Ill Seen Ill Said* alongside Daniel Myrick and Eduardo Sanchez's 1999 film *The Blair Witch Project* that focussed on the abstract levels of informatic narrative and front-end visuality, this section demonstrates the prospects for a contemporary minor that can exist within the major of contemporary commercial narrative production. This commercial dimension of the major, achieved through informatic abstraction, is the framework through which the final chapters of the thesis proceed. In making the aparallel connection between Beckett's prototypical contemporary minor and the modes of popular genre production that are emblematic of the control-era cultural marketplace, the position of his work as the prospective stem cell of control-era minor practice is clarified. This section also has the purpose of laying the theoretical and practical ground for the chapters that complete the thesis.

[36] This is a fascinating critical prospect that the ubiquity of digital information introduces. Steven Shaviro, for example, has noted that "much of the power" of Wark's *A Hacker Manifesto* lies in the way it harnesses the abstracting effects of the digital. For Wark this abstraction carries possibilities as well as limitations, enabling productive combinations of seemingly incompatible theoretical and cultural objects. Steven Shaviro, 'A Hacker Manifesto', http://www.shaviro.com/Blog/?p=361, Last accessed 19/3/09.

Part Three, the final part of the thesis, moves on to address the commercial dimension that is a qualifying condition of the contemporary major cultural object. Having established the formal properties of control-era major and minor practices, I now examine the ways in which the latter is manifested within examples of commercial, and therefore major, practice. This is not a ploy to find ways in which practitioners can both secure credibility by critiquing major forms and at the same time turn a profit. It is an acknowledgement of the fact that, under the conditions of the digital, the highly efficient feedback loop of audience figures and profit margins enabled by distributed technologies is a crucial determinant of the genuinely major cultural object, irrespective of its content. In order to exist within a major language or practice as Deleuze and Guattari specify the minor must engage with this executively commercial characteristic of the contemporary major, finding ways to turn the abstractions of the informatic market into tactics of counter-practice. Chapter 6, the first chapter of Part Three, examines the relationship between code and popular genre. Beginning with a reading of *Casablanca* by Richard Maltby that stresses the inherent ambiguity of informatic narrative in 1940s genre filmmaking, this section examines the increasing commercial abstraction of narrative into an indifferent, formal executive system in the 1980s and afterwards. Here, the connection between computation and narrative that is established in the first chapter of the thesis is extended through a specific examination of the function of contemporary commercial forms within the period of the control society.

Chapter 7 examines the horror genre, or a particular type of horror film that emerges within the distributive systems of the control era, as representing a model of contemporary narrative for both major and minor applications. Here the primary focus is on John Carpenter's *Halloween*, a film that is formally executive and commercially successful, and that also manifests the characteristics of the

contemporary minor established through the first two sections of the thesis. Through an examination of the relationship between major and minor characteristics in *Halloween*, from both formal and commercial perspectives, a picture of the control-era minor begins to emerge. Following from this come a pair of chapters, Chapters 8 and 9, which examine ways in which the limitations that result from commercial abstractions can themselves be abstracted into deterritorialised, minor possibilities. These chapters focus on David Lynch and Mark Frost's *Twin Peaks* and the film, television and video work directed by Takashi Miike respectively.

Finally, Chapter 10 addresses the videogame, the definitive entertainment medium of the control society as evidenced in Wark's use of gamespace to describe the same period. In this section, the executive, actional dimension of games is stressed as a direct allegory for the informatic, technical limitations of control societies. In games, where play is expressed algorithmically, any possibility for interpretation within rules is a prospective site of minor practice, foregrounding the same prospect in relation to other media in the control era. Possibilities for minor action in the videogame serve as an extremely productive site for thinking about minor tactics in older forms, and for this reason it is important to end the thesis on a discussion of these technical, actional processes.

Through the examination of various theorists, technologies, practices and practitioners across the thesis, a number of prospective routes for minor practice in the control era are suggested. None of these can be said to be a final, definitive model. After the working through of specific characteristics in the opening sections, there emerge various ways in which a minor practice may function, from code, narrative or text to visual output. Given the rapid and ongoing emergence of the current informatic age, the prospect of articulating a full and complete theory of control-era minor practice is at this point, and possibly from now on, a self-negating

one. It is through the oscillation of theoretical, technical and practical analysis with speculation that tentative solutions might arise. Ultimately, it is in creating an open, interdisciplinary form of writing that the most effective critical discourse – the discourse that both critiques and resists encoding – will be generated. Above all the thesis is designed to stimulate extensions, both formally and in terms of conceptual content. To paraphrase Aarseth's own conclusion to *Cybertext*, in which he addresses some of the inevitable shortfalls of theoretical work about digital technology, the aim of this work is to develop concepts and practices that are both readable and writable.[37]

[37] Espen Aarseth, *Cybertext* (London: The Johns Hopkins University Press, 1997), pp. 182-183. Aarseth's full statement is as follows; "My ambition is to make [my concepts] both readable and writable (and n a way that indicates the problem with these Barthesian terms, or at least with my understanding of them): readable, in the sense that their denotation should be as clear as possible (admittedly, I am, or try to be, one of what Gayatri C. Spivak recently called the 'clarity fetishists'); and writable, in the sense that I want you, the reader, to be a user in a transcending, cocreative, author mode."

Part One

Major and Minor in the Control Society

Chapter 1: The Contemporary Major

This work is concerned with the formation of a contemporary minor practice, a particular type of counter-practice that can function in relation to the major forms of the present era of ubiquitous digital informatics. The idea of the major and the minor as interrelated modes of cultural production comes from Gilles Deleuze and Félix Guattari's 1975 book *Kafka: toward a Minor Literature*, where they respectively constitute a specific bureaucratic mode and a specific counter-form to this mode in the early twentieth century. It is through the transposition of these two terms into the digitally-defined present that the following work will proceed. There is a relationship with technology bound up in the concepts of major and minor that lends itself to adaptation across periods, and as such makes these concepts especially useful in terms of addressing the cultural transformations that the technical, political, economic and social impact of ubiquitous computation brings about. The minor literature that Deleuze and Guattari outline in *Kafka* comprises three characteristics, and it is these characteristics that will ultimately form the nucleus of a corresponding contemporary minor practice in the current digital age:

> A minor literature does not come from a minor language; it is rather that which a minority constructs within a major language. But the first characteristic of a minor literature in any case is that in it language is affected with a high coefficient of deterritorialization.
>
> The second rule of minor literatures is that everything in them is political… cramped spaces forces each individual intrigue to connect immediately to politics. The individual concern thus becomes all the more necessary, indispensable, magnified, because a whole other story is vibrating within it.
>
> The third characteristic of minor literature is that in it everything takes on a collective value…scarcity of talent is in fact beneficial and allows something other than a literature of masters.[1]

[1] Gilles Deleuze and Felix Guattari, *Kafka: toward a Minor Literature*, trans. Brian Massumi, (Minneapolis: University of Minnesota Press, 1986), pp.17-18. Hereafter referred to as *Kafka*.

It is not possible, however, to simply apply these three characteristics wholesale in the present. As the introduction to this thesis makes clear, the invention and distribution to ubiquity of the digital computer represents a significant technological development between Kafka's early twentieth century and today, a development that that makes a reconsideration of any counter-mode derived from the pre-digital era essential.

As *Kafka* draws to a close Deleuze and Guattari make a statement that connects the major – and therefore the minor – to the function of technical machines, and in doing so provide a framework for the prospective adaptation of the twin concepts across the significant changes that occur between Kafka's period and the present:

> …in Kafka's work, it is not only a question of technical machines in themselves or of the juridical statement in itself; rather, the technical machine furnishes the model of a form of content that is applicable to the whole social field.[2]

For Deleuze and Guattari the connection between the technical machine (the typewriter) and the form of power (bureaucracy) in Kafka's writing is that which defines the "whole social field" of the early twentieth century. This connection clearly represents a transition from the institutionally-defined disciplinary societies Foucault examines in *Discipline and Punish.*[3] Deleuze has himself stated that in *The Trial* Kafka, "standing at the point of transition between the two kinds of society", both describes a disciplinary bureaucracy and hints at the forms of power that might develop out of it, moving from "*apparent acquittal* (between two confinements) in disciplinary societies" and "*endless postponements*" that suggest the emergence of a later form of society.[4]

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[2] *Ibid.*, p.83.
[3] See Friedrich Kittler, *Discourse Networks 1800/1900* (Stanford: Stanford University Press, 2001), pp. 359-363 and *Gramophone, Film, Typewriter* (Stanford: Stanford University Press, 1999), pp. 222-228. The connection between Kafka's writing and the typewriter is also made briefly by Deleuze and Guattari; see *Kafka* p.30 and p.94 n5.
[4] Gilles Deleuze, *Negotiations*, p.179.

The assemblage of technical machines and bureaucracy that is presented in Kafka's work comprises the very early stages of the movement towards both contemporary forms of power and, by extension, the minor forms that stand in contrast to them. Following Deleuze and Guattari's connection between technical machines and social fields, it is necessary to extend this connection into the age of the computer – the 'universal machine' that Friedrich Kittler places at the end of a progression that begins with the typewriter's discretisation of text – in order to identify a minor practice that can function in the present.[5] In doing this, and consequently modifying the form and function of the major, the three characteristics of minor practice set out by Deleuze and Guattari can themselves be effectively transposed, leading to the possibility of a contemporary minor. To this end, before the minor practice can be identified it is necessary to examine the ways in which the major modulates from (for example) the typewriter and bureaucracy to the computer and a different type of power.

In the first chapter of *Kafka* Deleuze and Guattari attempt to demonstrate the distinction between major and minor in Kafka's period through a pair of equations, the first corresponding to the major and the second to the minor.

bent head ———————— portrait-photo	=	a blocked, oppressed or oppressing, neutralized desire, with a minimum of connection, childhood memory, territoriality or reterritorialization.
straightened head ———————————— musical sound	=	a desire that straightens up or moves forward, and opens up to new connections, childhood block or animal block, deterritorialization.[6]

[5] See Friedrich Kittler, 'Typewriter', in *Gramophone, Film, Typewriter*, and 'The History of Communication Media', http://www.ctheory.net/articles.aspx?id=45#note72. Last accessed 01/04/09.
[6] *Kafka,* p.5.

The important part of these equations, in thinking about major and minor in the digital age, is the opposition of the analogue representations of the portrait or photo to the musical sound. Immediately following these equations, Deleuze and Guattari are quick to stress the difference between "systematised" "composed" or "semiotically shaped" music and the "pure sonorous material" that they are referring to, and it is in this distinction that the progression of major and minor from 1913 to the present can be configured.[7] As Kittler's most recent work suggests, the performance of notated music is in many ways comparable to the technical function of computing, being made up of a mathematically-derived store (the score), a technical executive process (the performance) and an output (the heard music) that is radically distinct from the material function of the notation.[8] Thought about in this way, the distinction between the contemporary major and minor equates to a distinction within Deleuze and Guattari's comprehension of the minor itself in Kafka's period; that between notated music and forms that exceed notation. Here lies the crucial transformation of the minor that accompanies the emergence of the digital era; when the major becomes a process whereby all experience is technically formalised as data, the minor must become that which both engages with this technical process and exceeds it – the musical sound that cannot be recorded as score, but only by technical media.[9] In order to begin this transposition it is necessary to examine the specific modes of

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[7] *Ibid.*, 1913 is being used here as it is the year of a letter from Kafka to Felice Bauer, cited by Deleuze and Guattari, Kittler and Bernhard Siegert, on the prospect of combining various technical media – such as parlograph, gramophone and telephone - and then connecting these combinations with each other across space. See Franz Kafka, *Letters to Felice* (London: Secker and Warburg, 1974), pp.167-168, the citations in note 3 of this chapter and Bernhard Siegert, *Relays: Literature as an Epoch of the Postal Service*, trans. Kevin Repp, (Stanford: Stanford University Press, 1999), p.256. This prospect, of course, predates the computer and the network, placing Kafka at the intersection of disciplinary societies and their successors as noted by Deleuze (see note 4 of this chapter).

[8] See Friedrich Kittler, 'Number and Numeral', *Theory, Culture and Society* 23 nos. 7-8 (December 2006), p56.

[9] Deleuze and Guattari point out several instances of this type of music in Kafka's writing, from the "John Cage-like concert" in *History of a Struggle* to the music of the dogs and Josephine the mouse in 'Investigations of a Dog' and 'Josephine the Singer, or the Mouse Folk' respectively, Karl Rossman's playing in *Amerika*, where he feels "a song rising within him that reach[es] past the end of the song" and the violin playing of Gregor's sister, "bothered by the shadow of the boarders", in 'The Metamorphosis'. *Kafka*, pp.5-6.

functionality that distinguish a contemporary major practice from that evoked by Deleuze and Guattari in relation to Kafka's early twentieth century.

When establishing the major that any contemporary minor must exist within and deterritorialise in the present day, it is important to look at a piece that appears at the end of Gilles Deleuze's *Negotiations* titled 'Postscript on Control Societies'. Here Deleuze establishes, through an extension of Foucault's periodisation in *Discipline and Punish*, a distinction between three historical models of power each defined by a particular type of machine. Deleuze begins by reiterating Foucault's formulation of the sovereign society, visibly emanating from a central body, which defines a pre-modern age and the decentralised, disciplinary society, exercised through prisons factories and schools, which define the modern age. These periods, Deleuze notes, can be easily identified with a particular class of machine: sovereign societies with "simple machines, [with] levers, clocks and pulleys", and disciplinary societies with "thermodynamic machines".[10] The purpose of the 'Postscript on Control Societies' is to define a third model of power that comes into existence in the mid-to-late twentieth century, and that is identified with computers and information technology. Deleuze writes that:

> In control societies…the key thing is no longer a signature or a number but a code: codes are *passwords*, whereas disciplinary societies are ruled by *precepts*. The digital language of control is made up of codes indicating whether access to some information should be allowed or denied. We're no longer dealing with a duality of mass and individual. Individuals become '*dividuals*', and masses become samples, data, markets or '*banks*'.[11]

This third model is not a radical break from Foucault's preceding periods, but rather a continuation of the process of 'spreading out' that Foucault traces from the body of the sovereign to the variety of institutions through the eighteenth and nineteenth

[10] Deleuze, *Negotiations*, p.180.
[11] *Ibid.*

centuries, and that finally moves in the twentieth century towards a perpetual self-organisation that is no longer decentralised but distributed.

In 'Control and Becoming', a 1990 conversation with Antonio Negri published in *Negotiations*, Deleuze makes some brief statements connecting majority and control, specifying the major in the late twentieth century as that which abstracts, reducing multiple possibilities to definitive models. Deleuze claims that:

> [t]he difference between minorities and majorities isn't their size. A minority may be bigger than a majority. What defines a majority is a model you have to conform to… *the majority is nobody*.[12]

The major that corresponds to the control society does not define a class of person, or a type of behaviour, but the coding of classes and behaviours in order to create a perpetual system of control. The informatic processes of the control society, whose socio-cultural dimension can be seen as the gamespace defined by Wark in *Gamer Theory* and whose global level can be seen as the condition of Empire defined by Michael Hardt and Antonio Negri, enable a perfection of the major, the establishment of a model that cannot be characterised or defined through any identifiable body, but that inputs, defines and records all possibilities and bodies as indifferent information.[13]

In the course of the 'Postscript on Control Societies', Deleuze describes some ways in which the control society begins to transform the institutions Foucault defines as central to the preceding disciplinary societies. In schools, "continuous assessment"[14] replaces individual hierarchies; an example of this in Britain is the 1988 National Curriculum, a distributed code that effects universal standardisation. In the hospital system, the "new medicine 'without doctors or patients'" that "identifies potential cases and subjects at risk" marks a progression towards "the

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[12] *Ibid.*, p.173. Emphasis added.
[13] See Michael Hardt and Antonio Negri, *Empire* (London: Harvard University Press, 2000).
[14] Deleuze, *Negotiations,* p.182.

substitution of individual or numbered bodies of coded 'dividual' matter to be controlled";[15] this can be witnessed, for example, in the discovery of the SARS virus in 2002 through internet monitoring by the Global Public Health Intelligence Network (GPHIN).[16] This replacement of the concrete sign of control – the disciplinary institution with its human agents and physical boundaries – with distributed, informatic control is expanded by N. Katherine Hayles, who observes its presence across a breadth of categories:

> Money is increasingly experienced as informational patterns stored in computer banks rather than as the presence of cash; surrogacy and in vitro fertilization court cases offer examples of informational genetic patterns competing with physical presence for the right to determine the 'legitimate' parent; automated factories are controlled by programs that constitute the physical realities of work assignments and production schedules as flows of information through the system; criminals are tied to crime scenes through DNA patterns rather than through eyewitness accounts verifying their presence; access to computer networks, rather than physical possession of data, determines nine-tenths of computer law.[17]

The process of abstraction that Hayles identifies, an abstraction of multiple social, economic and cultural factors into unambiguous information, is central to the way majority is mapped onto the control society. As such, it is around the technical processes that facilitate this movement that the analysis of major formations in the present must take place.[18]

The analysis of the contemporary major in this chapter will take the form of three characteristics; code, narrative and visuality. Each of these three interrelated elements forms a crucial dimension of the connection between computation and power in the late twentieth and early twenty-first centuries, and it is through an examination of their literal and allegorical function that the contemporary major forms begin to emerge. These three terms, it must be noted, are connected to the

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[15] *Ibid.*

[16] Abla Mawudeku and Michael Blench. 'Global Public Health Intelligence Network', at http://www.mt-archive.info/MTS-2005-Mawudeku.pdf. Last accessed 4/7/08.

[17] N. Katherine Hayles. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics* (Chicago, London: University of Chicago Press, 1999), pp.27-28.

[18] Also see McKenzie Wark, *A Hacker Manifesto*, paragraphs 001-023 for a discussion of the processes of abstraction that define the contemporary era of control.

code/software/visual output triad that is definitive of modern computer function.[19] While code largely retains the same function and meaning across these allegorical and literal trios, narrative is in many ways the software of the contemporary major, both hiding and adding functionality to underlying processes.[20] Finally, a visual element that runs above both code and its instrumental, overlying processes, providing accessibility and user-friendliness, is an essential component of both computation and broader culture in the digital age.

Code

The political conundrum that control throws up in relation to cultural modes of resistance is highly problematic. If control is distributed, taking the form of the network of computers that abstract all possibility into identical data rather than the centre or the institution that define power in sovereign and disciplinary eras, then any attempt to resist it using models of distribution, complexity and disorder become useless. This is a prospect that forms the heart of Hardt and Negri's *Empire*, and which is subsequently developed into the technical realm by Geert Lovink and Florian Schneider in their 2004 piece 'Notes on the State of Networking'. For Lovink and Schneider analysis of the general state of Empire, as carried out with great care, observation and rigour by Hardt and Negri, is insufficient. Since the political era that Empire defines is itself determined by a specific technology, it is necessary to address the material aspects of this technology in order to grasp the global functions of control that Empire suggests. To this end, Lovink and Schneider employ the term

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[19] Manovich, in *the Language of New Media*, supports this three-layered depiction of digital media: Manovich states that the new media object is "digital on the level of its material", "computational (i.e. software driven) in its logic" and "cinematographic in its appearance." Lev Manovich, *The Language of New Media*, (Cambridge, London: The MIT Press, 2001), p.180. Also see Colin Machin, *Computer Systems: Where Hardware Meets Software* (Bromley: Chartwell, 1988), pp.1-7 for a simple overview of the way in which a basic computer system functions from code to output.

[20] See Manovich, *The Language of New Media*, pp.221-233 for a highly formal account of the relationship between data, algorithm and narrative.

'Info-Empire' to stress the significant addition of a technical dimension to Hardt and Negri's formulation.[21]

While, as Lovink and Schneider state in relative agreement with Hardt and Negri, "networks are the emerging cultural forms of our time", they are quick to stress that it is the technical function of these networks that must be examined in order to grasp the broader political implications.[22] The analysis and critique of 'Info-Empire' must take place at the twin levels of function and manufacture, software and hardware – through "unlikely encounters…between coders and solders".[23] Building on this notion, or rather breaking its focus down to the smallest constituent parts, it is necessary to examine the function of the individual machines that constitute the nodes of a network in order to grasp the material functions of the control society and its extensions, gamespace and 'Info-Empire'. In terms of the major and the minor, Lovink and Schneider's comments on cultural theory in 'Notes on the State of Networking' are especially telling, providing a framework for considering the way in which cultural objects take up a specific role in analysis of the control era:

> The networking paradigm escapes the centrality of the icon to visual culture and its critics and instead focuses on more abstract, invisible, subtle processes and feedback loops. There is nothing spectacular about networking. And this is exactly why most of the leading theorists are not aware of the current power transformations. They still sit in front of the television and watch the news or a rental VHS – perhaps they have even bought a DVD player by now.[24]

In examining the contemporary major it is the "subtle processes" and "feedback loops" related to computation that take the place of older models of analysis, even when addressing cultural objects that emerge during periods defined by the cinema or the VHS cassette. To this end, code, and its relationship with hardware, forms an essential first stage in the understanding of the major in the control society.

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[21] Geert Lovink and Florian Schneider, 'Notes on the State of Networking', http://www.makeworlds.org/node/100. Last accessed 01/04/09.
[22] *Ibid.*
[23] *Ibid*.
[24] *Ibid.*

The definitive characteristic of code, that makes its ubiquity so essential to the function of the control society, is that it represents a formal language that is directly actional. Code makes things happen without passing through the realm of interpretation; it always relates to action resulting from formal processes. This is something that Kittler makes clear in 'There is no Software':

> All code operations, despite their metaphoric faculties such as 'call' or 'return', come down to absolutely local string manipulations and that is, I am afraid, to signifiers of voltage differences. Formalization…does away with theory itself, insofar as the theory is no longer a system of meaningful propositions, but one of sentences as sequences of words, which are in turn sequences of letters. We can tell [say] by reference to the form alone which combinations of the words are sentences, which sentences are axioms, and which sentences follow as immediate consequences of others.[25]

The application of the characteristics of code to a society reduces interactions between subject and power to unambiguous, mechanical processes. No amount of critical analysis prevents an 'a' appearing on the screen of a computer running Microsoft Word when the 'a' key is pressed on the keyboard. Equally, under the control society that creates an abstracted correspondence between technical, cultural, social and political processes, no analysis or argument can prevent a 'cease and desist' letter being dispatched to a home address, corresponding to a databased computer IP (Internet Protocol) address, which is logged accessing prohibited information such as a copyrighted film or piece of music from a file sharing site.

In short, computer code differs from natural languages because it is executive. If, as is the case with any beginner to almost any programming language, I want the statement 'Hello World' to appear on my computer monitor without using a software application such as MS Word, I can write the following set of mnemonics:

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[25] Friedrich Kittler, *Literature, Media, Information Systems*, p.150. See also 'Speech, Writing, Code' in N. Katherine Hayles' *My Mother was a Computer* (Chicago, London: University of Chicago Press, 1999), for a lengthy analysis of the executive nature of code as compared to both Saussure's structuralist linguistics and Derrida's deconstructive practice.

```
ideal
p286n
model tiny

codeseg
   org 100h
   jmp start

   message db 'Hello World!$'
start:
   mov dx, offset message
   mov ah, 09
   int 21h

   mov ax, 4c00h
   int 21h
end
```

This small chunk of low-level assembly language will always produce the same output when typed into the command line of any computer containing an x86 microprocessor.[26] This is a very limited example of the way in which code produces action. Beyond this simple, fixed-output program, code can be used to produce a wide variety of output from a wide variety of data; in these cases, which account for almost all programming, code essentially instrumentalises numbers.

Where spoken or written discourses describe physical phenomena by using incomplete, arbitrary natural languages, science and mathematics use numbers to attain a precision that is indifferent to the content of the phenomena described. Numbers alone have no executability, that is, they cannot be used to perform actions within the world of the human subject, until the proliferation of computers through the second half of the twentieth century. By making stored numbers executable through language, code makes power relations perpetual and indifferent; this is the definitive process of the control society.

[26] The x86 microprocessor architecture is undoubtedly the most commonly found in contemporary commercial computers. It is the architecture upon which each Intel Corporation microprocessor since the late 1970s is based; Intel microprocessors currently hold an 81.8% market share (April 2009) - see http://blogs.reuters.com/mediafile/2009/04/01/intel-boosts-share-thanks-to-netbooks/. Last accessed 03/04/09. Also see Gary Anthes, 'A Brief History of the x86 Microprocessor', http://www.computerworld.com/action/article.do?command=viewArticleBasic&articleId=9091018. Last accessed 03/04/09. Finally, for a theoretical critique of the x86 architecture at the time of its growing commercial ubiquity in the late 1980s, see Friedrich Kittler 'Protected Mode', in *Literature, Media, Information Systems*.

As Alan Turing states in his 'Computer Machinery and Intelligence', published in 1950 while he undertook research into early software-based computing at the University of Manchester, "[a] digital computer can usually be regarded as consisting of three parts":

(i) Store.

(ii) Executive unit.

(iii) Control.[27]

In these three parts the conceptual essence of the relationship between power and digital technology is encapsulated; the storing of data and the execution of actions, leading to control. In computation, these stages are executed through programming, or code. When executive processes resolve to language underpinned by stored numbers, control becomes abstracted into indifferent perpetuity, or perpetual modulation.[28] Friedrich Kittler notes, in the introduction to *Gramophone, Film, Typewriter*, that "[w]ith numbers, everything goes. Modulation, transformation, synchronisation; delay, storage, transposition; scrambling, scanning, mapping…"[29] This possibility, the source of the abstraction that is definitive of Wark's gamespace and Deleuze's control society, is the significant distinction between the major of Kafka's period and that of the present.

Following this technical model, escaping control under the conditions of computer languages is no longer a case of achieving free expression, but of attaining possibility. Towards the end of the 'Postscript on Control Societies' Deleuze demonstrates the distributed nature of informatic control through the prospect of a city where everybody can leave their "flat, their street, their neighbourhood" by means of an electronic card indexed on a central computer. Under the conditions of the control

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[27] Alan Turing, 'Computer Machinery and Intelligence', http://www.abelard.org/turpap/turpap.htm. Last accessed 29/06/08.
[28] Deleuze, *Negotiations*, p.178.
[29] Friedrich Kittler, *Gramophone, Film, Typewriter*, p.II.

society, "[i]t doesn't depend on the barrier, but the on the computer that is making sure everybody is in a permissible place, and effecting a universal modulation."[30] This is perhaps best illustrated with a reference to the videogame, the only medium that is native to the period Deleuze denotes as the control society. In *Track and Field*, a 1988 athletics game for the Nintendo Entertainment System, it is impossible to run off the track; the threat of disqualification that prevents this action in real athletics is replaced with an indifferent set of protocols, reducing possible actions to an invariable set of movements tied to the four buttons and single directional control on the game pad. Regulation is effected not by any human agent, the umpire in the case of an athletics meet in the real world, but by the unambiguous management of possibility through limitations that are coded. This simple example describes the central facet of the control society, and by extension the definitive property of the major forms that are derived from it.

Narrative

The terms 'sedentary' and 'nomadic' are used throughout Deleuze and Guattari's *A Thousand Plateaus* to refer to a pair of opposite attitudes that are both in constant flux and present across distinct historical periods, from sovereign to disciplinary societies and into a contemporary period that Deleuze would later define as the control society. While the nomadic mode of thought embraces multiplicity, fluidity and difference as continually enabling new thoughts, feelings and sensations, the sedentary mode strives to return what is deemed the chaos of multiplicity to a state of functional order. The nomadic and the sedentary are the narrative modes of the minor and the major respectively, and are subject to the same technically-determined processes that

[30] Deleuze, *Negotiations*, pp. 181-2.

are definitive of the change from disciplinary to control society. Deleuze and Guattari state that:

> [h]istory is always written from the sedentary point of view and in the name of a state apparatus, at least a possible one, even when the topic is nomads. What is lacking is a Nomadology, the opposite of a history.[31]

It is important to recognise that, in the control society, the technical concept of code enables a development of the sedentary to the point that the nomadic is no longer written as sedentary in the name of a traceable state apparatus, but instead recorded as indifferent information in an ongoing, technical process. In control societies, the nomadic is not erased or overwritten but abstracted and coded.

The military strategists John Arquilla and David Ronfeldt set out "five levels at which information-age networks need to excel", defining the functionality of coded major narrative, in 'Fight Networks with Networks', a contribution to a RAND review special issue on counter-terrorism. The first, third and fourth levels deal specifically with military actions in terms of organisation, doctrine (or strategy) and technology, but the second and fifth are telling in relation to the control society at the level of narrative:

> Second, at the narrative level, Western ideas about the spread of free markets, free peoples, and open societies contend with Muslim convictions about the exploitative, invasive, and demeaning nature of Western incursions into the Islamic world. The United States has toughened its narrative by deeming the terrorist attacks 'acts of war' against 'the civilized world,' and American public opinion has been galvanized by the revival of the Pearl Harbor metaphor.
>
> The United States may hold the edge in the "battle of the story" in much of the world, but it will have to think deeply about how to retain that edge as U.S. forces take action in the Middle East. More than ever, we must craft an 'information strategy' complete with truth-seeking teams of 'special media forces' that could discover and disseminate accurate information. And wherever we use military force, we must beware of causing noncombatant casualties, so that we are not vulnerable to the countercharge of being 'state terrorists.'
>
> Fifth, at the social level, the al-Qaeda network features tight religious and kinship bonds among people who share a tribal, clannish view of 'us' versus 'them.' In this

[31] Gilles Deleuze and Felix Guattari, *A Thousand Plateaus*, trans. Brian Massumi, (London, New York: Continuum, 2000), p.23.

> regard, the United States faces a profound challenge. If the Pearl Harbor metaphor holds up, and if U.S. operations result in successful early counterstrikes, then there may be unusual public solidarity to sustain the war on terrorism. But a different social divide could also emerge between the United States and Europe over whether the counterstrikes should follow a 'war' or a 'law enforcement' paradigm.[32]

In terms of the allegorical manifestations of code and control diagrams amongst the world of individual subjects this adds up to a quite remarkable claim; that the "battle of the story", or the normalisation of socio-political changes through processes of narrative abstraction, is an essential component of control at the international level which Hardt and Negri define as Empire and Lovink and Schneider develop into 'Info-Empire'. For Arquilla and Ronfeldt, an essential procedure alongside actual combat is the "toughening" of narrative and the crafting of an "information strategy" through "special media forces." These processes are achieved through the reduction of all events, including military procedures and casualties, to indifferent data, and the creation of an effective story out of this data. Who is abstracted as "us" and who as "them" in the story attached to a particular conflict? Which events suit presentation under the "law enforcement" narrative and which suit the "war" one? It is essential, in analysing the technical processes that allow the construction of this informatic narrative or info-narrative that corresponds to the global condition of 'Info-Empire', to closely examine the way such processes emerge and are perfected and normalised at the social and cultural levels of narrative alongside the emergence of the control society and gamespace.

The prospect of ubiquitous, executable code being normalised through a mixture of technical processes and allegory in narrative, one of the essential levels that Arquilla and Ronfeldt identify in terms of defeating contemporary threats to control, is central to its ongoing functionality amongst the world of human users. In her essay 'On Software, or the Persistence of Visual Knowledge' Wendy Chun makes the

[32] John Arquilla and David Ronfeldt, 'Fight Networks with Networks', http://www.rand.org/publications/randreview/issues/rr.12.01/fullalert.html. Last accessed 25/06/08.

productive connection that "software is a functional analog to ideology."[33] Building on this, what I have defined above as info-narrative is a functional analogue for software, serving to make abstract, underlying data and code processes invisible, and therefore both normal and useful, without disclosing full understanding and full executive power to the individual user. Chun, working from Slavoj Žižek to develop the analogue between software and ideology, states that:

> Žižek (through Peter Sloterdjik) argues that ideology persists in one's actions rather than in one's beliefs. The illusion of ideology exists not at the level of knowledge but rather at the level of doing: this illusion, maintained through the imaginary 'meaning of the law' (causality), screens the fact that authority is without truth – that one obeys the law to the extent that it is incomprehensible. *Is this not computation?* Through the illusion of meaning and causality do we not cover over the fact that we do not and cannot fully understand nor control computation?[34]

In the same way, the "illusion of meaning and causality" that persists in contemporary major narrative, or info-narrative, hides the underlying process whereby all events and characters comprising a story are controlled modulations of indifferent, abstract data. Equally, the idea of obeying the law "to the extent that it is incomprehensible" reflects the executive dimension of this major narrative, the idea that the correct data in the correct order will always produce a satisfying, comprehensible output irrespective of interpretation. The implication of Chun's reading, that there is a conceptual link between the transformation of political narratives and the abstract executive code and data structures of computation, leads directly to Wark's gamespace; a world made over as digital game of life, yet one that withholds the level playing field of the actual videogame.

In *Gamer Theory* Wark traces a significant passage in the processes of narrative alongside the emergence of ubiquitous digitisation, moving from the topography of mapped space that corresponds to the disciplinary period to a topology of indifferent

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[33] Wendy Hui Kyong Chun, 'On Software, or the Persistence of Visual Knowledge', *Grey Room* 18 (Winter 2005), p.43.
[34] *Ibid.*, p.44.

data that corresponds to gamespace or the control period. For Wark, the Western plot such as that of *The Man Who Shot Liberty Valance*, whose narrative process creates "a storyline that justifies the imposition of the thin blue line of the law", develops through communication technologies into the type of plot we find in *High Noon*, where the sheriff learns of the arrival of his enemy by telegraph. This procession through emblematic film narratives reaches its completion in the film noir plot of *The Naked City* where telesthesia, or perception at a distance, covers all space – "the police, forensics, the coroner…all brought together by the switchboard operator, enabling and overcoming division of labour with the telephone and compacting space into a temporal event."[35] While each of the periods depicted in Wark's examples corresponds to a technical progression through the topographic – from map to telegraph to telephone switchboard – the films themselves actually occur in reverse chronological order – with *The Man Who Shot Liberty Valance* released in 1962, *High Noon* in 1952 and *The Naked City* in 1948. This serves to illustrate the centrality of the technical modes that underpin the era that each film depicts to developments within the disciplinary mode that topography corresponds to; as their dates of production move closer to the emergence of the control society, Wark's cinematic examples work back, in the periods that they depict, to a point where disordered space is first mapped and connected with lines. At this point, when one can go no further back into topography without pushing into the topical mode that corresponds to sovereign societies, it is possible to say that the disciplinary period forms a major narrative mode, concerned with the "flow of information across space", that begins with the map and ends with the cinema.[36]

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[35] McKenzie Wark, *Gamer Theory*, paragraphs 054-055.
[36] *Ibid.*, paragraph 066. See also 'Fig. C', above paragraph 053 of *Gamer Theory*, for a comparison of the three periods, corresponding roughly to sovereign, disciplinary and control, that Wark is concerned with.

By tracing the topological form, of which the most recent medium is the videogame, back to the point that it intersects with the cinema in television Wark notes that the definitive narrative mode of gamespace is that of "intricate coding and addressing". [37] Topology develops to replace topography when digital technologies allow any object to become abstracted, made equal to any other through its indifferent reduction to data and algorithms. As Wark states, "[t]he fixed geometry of topography gives way to the variable forms of topology, in which the lines connecting together lend themselves to transformation without rupture from one shape to another."[38] Following this, an algorithmic form of narrative emerges to perfect the sedentary and the major when the definitive technology becomes computers instead of analogue machines. Algorithmic info-narrative is the major narrative of the control society, where stories "recount the steps by which someone beat[s] someone else."[39] The processes that define this formulation, which is framed from below and above by code and a visual layer respectively, are crucial in grasping the transformations undergone by the major in the passage from disciplinary to control societies.

In examining certain theoretical and technical work on narrative from the mid-to-late twentieth century it is possible to see the emergence of an approach based in data and algorithms that marks a transition from disciplinary to control society. B.N Colby, George A. Collier and Susan K. Postal, in a 1963 article for the *Journal of American Folklore*, describe the computerised analysis of 45,000 words worth of folktales across five cultures in an attempt to locate distinctions and similarities that are based solely on formal properties.[40] Using an IBM 7090 computer and punch

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[37] See *Ibid.*, paragraph 057. "The key genres for working out the subsumption of the topographic into the topological are the situation comedy and the game show. On a game show, anyone can be taken out of everyday life and brought into the magic circle of television; on a sitcom, television can extend itself to the everyday life familiar to the *average viewer*."
[38] *Ibid.*, paragraph 056.
[39] *Ibid.*, paragraph 007.
[40] For clarity, in light of the problematic distinction between folk and fairy tales and because this work is specifically focussed on narrative and form, I use folktales throughout to refer to both.

cards, the task necessitated removing both "high frequency words of low information content" and "words of medium frequency which have multiple meanings and are therefore ambiguous out of context" in order to focus on "words with single predominating meanings which are classified under one of 180 themes."[41] This is a process of abstraction and noise reduction; as the paper states, "the eliminating of high frequency words and those with multiple meanings is a regrettable information loss but it is in the interest of greater analytical clarity and accuracy."[42] While the general project attempted by Colby, Collier and Postal does not differ massively from that of Vladimir Propp's 1928 work *Morphology of the Folktale* in terms of formal approach, the addition of the computer as an entirely indifferent actant serves to highlight an emerging approach to narrative that characterises the movement towards an indifferent form of narrative control in the late twentieth and early twenty-first centuries. Both projects represent examples of the processes through which narrative becomes coded and algorithmic as the control society replaces the preceding disciplinary period.[43]

Propp, in *Morphology of the Folktale*, does not carry out analysis by computer as Colby, Collier and Postal do, but his methodology defines a similarly formal approach, defining a finite number of discrete objects, or 'moves', from which any whole tale can be derived through an algorithmic procedure. As Propp states, "by employing structural features, a given class may be discerned from others absolutely

[41] B.N Colby, George A. Collier and Susan K. Postal, 'Comparison of Themes in Folktales by the General Inquirer System', *The Journal of American Folklore* vol. 76 no. 302 (Oct-Dec 1963), p.318.
[42] *Ibid*.
[43] In Chapter 6 of *Cybertext*, 'The Cyborg Author', Espen Aarseth addresses a number of computer story generators, including James Meehan's 'Tale-spin' and William Chamberlain's 'Racter'. While each of Aarseth's examples appears to go further than Colby, Collier and Postal in attempting to actually construct new tales from component parts, they all occur significantly later – 'Tale-spin' in 1976 and 'Racter' in 1984, for example – and are so reliant on human intervention to produce 'successful' tales that they add little extra to the process of stories becoming digitised. See Espen Aarseth, *Cybertext*, pp.129-141.

accurately and objectively."[44] The result of this procedure is the abstraction of indifferent code from narrative; a tale called 'The Swan Geese', for example, becomes the following expression:

$$\gamma^1\beta^1\delta^1 A^1 C\uparrow \left\{ \begin{matrix} [DE^1 \text{ neg. } F \text{ neg.}] \\ d^7E^7F^9 \end{matrix} \right\} G^4K^1\downarrow [Pr^1D^1E^1F^9 = Rs^4]^3$$

[45]

The movement from interpreted to coded narrative that Propp suggests is connected by Fredric Jameson, in the 'Magical Narratives' chapter of *The Political Unconscious,* to the movement from disciplinary to control periods that is addressed by Deleuze. As Jameson states:

> It will have become evident that these two approaches [semantic and syntactic or structural] correspond to...the rivalry between old fashioned "interpretation," which still asks the text what it *means*, and the newer kinds of analysis which...asks how it *works*.[46]

This transition, from 'meaning' to function is crucial to the definition of major narrative in the control era, and forms the core of Jameson's analysis of the relationship between narrative and history that runs through *The Political Unconscious* into *The Geopolitical Aesthetic*.

Jameson defines the syntactic approach that he associates with Propp as aiming "less at discovering the meaning of the generic mechanism or process than at constructing its model," and is quick to note that Propp's work is by no means a completion of this coded approach to narrative, but rather the first step towards such a model.[47] Citing Claude Lévi-Strauss's 1960 review of *Morphology of the Folktale* in

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[44] Vladimir Propp, *Morphology of the Folktale*, ed. L.A. Wagner, (Austin: University of Texas Press, 1968), p.101.
[45] *Ibid.*, p.99.
[46] Fredric Jameson, *The Political Unconscious* (London: Methuen, 1981), p.108.
[47] *Ibid.*

order to show a "twofold (and paradoxical) weakness"[48] in Propp's approach, Jameson suggests that Propp's functions are limited in that they both "fail to attain an adequate level of abstraction" and are "not yet meaningful enough."[49] In other words, the coding process Propp applies to narrative does not go far enough in reducing all story events to indifferent data, nor is it able to make its abstracted data functional as narrative after it has been coded. Despite these limitations, however, Propp's work begins a process that develops to define narrative in the control era where computers are able to abstract objects into data without any shortfall.

Through Jameson's writing it becomes clear that the movement towards coding is a process that develops alongside the emergence of the control society. From Jameson's analysis of Propp and subsequent writers such as Lèvi-Strauss and A.J. Greimas in *The Political Unconscious*, where the pressing question is "whether the ideal of formalisation...is ultimately realisable",[50] to his discussion of the political conspiracy thriller in *The Geopolitical Aesthetic* it is possible to trace a movement that defines the major narrative mode of the control era. In *The Political Unconscious* Jameson is clearly aware of the desire for a coded narrative under nascent control conditions, noting that "what was powerful and attractive about [Propp's] method from the outset was precisely the possibility it offered for reducing a wealth of empirical or surface narrative events to a much smaller number of abstract or 'deep structural' moments."[51] After it becomes possible to abstract code from events, the next step in the development of the control-era major is to make this code executable as narrative; this is the process Jameson observes in *The Geopolitical Aesthetic* when

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[48] *Ibid.*, p.120. Also see Alan Dundes, 'Binary Opposition in Myth: The Propp/Lèvi-Strauss Debate in Retrospect', *Western Folklore* vol. 56 no. 1 (Winter 1997), pp.39-50. For the review of Propp's *Morphology* by Lèvi-Strauss see Vladimir Propp, *Theory and History of Folklore*, ed. Anatoly Liberman, trans. Ariadna Y. Martin, Richard P. Martin et al, (Manchester: Manchester University Press, 1984), pp.167-189.
[49] *Ibid.*
[50] *Ibid.*, p.122.
[51] *Ibid.*, p. 120.

he notes the erasure of definable, human antagonists to stand in binary opposition to the protagonist in the conspiracy thriller in favour of an apparently free-floating, total mode of control that comes to define narrative form.

For Jameson, the mid-to late twentieth century conspiracy spy thriller, where the plot turns on the "facile but effective device of the double agent, so that teams of villains can be transformed into heroes at the flip of a switch" demonstrates a movement towards what can be defined as a control-era major practice, where digital machines form the analogical basis of narrative, abstracting individual actors into interchangeable units within a formal structure.[52] The type of spy thriller Jameson addresses:

> ... go[es] a certain way towards declaring at least the intent to construct a narrative which is in some way an *analogon* of and a stand-in for the unimaginable overdetermination of the computer itself.[53]

At this point the inadequate abstraction of plot events into indifferent data that Jameson finds in Propp appears to have been addressed, in parallel with the abstract data processing that digital media enable. The problem that remains in the perfection of a major narrative form in the control era is the second one Jameson finds in Propp, the inadequate executability of the data as meaningful narrative. This problem prevents total functionality in terms of the contemporary major because it results in confusion, drawing attention to the underlying abstraction of plot events:

> ...in representations like these [mid-twentieth century spy thrillers], the operative effect is confusion rather than articulation. It is at the point where we give up and are no longer able to remember which side the characters are on, and how they have been revealed to be hooked up with the other ones, that we have presumably grasped the deeper truth of the world system.[54]

In the mid-twentieth century period examined by Jameson, the outcome of algorithmic narrative is a form that reveals its underlying processes. While this

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[52] Fredric Jameson, *The Geopolitical Aesthetic* (Bloomington: Indiana University Press, 1992), p.16.
[53] *Ibid.*
[54] *Ibid.*

remains an imperfect model of a contemporary major practice from both commercial and political perspectives, such formalisation is nonetheless a significant development towards an info-narrative of patterning, not interpretation, which can accompany 'Info-Empire'.

The formation of this info-narrative is extended into the contemporary control era by Alexander Galloway, who notes that "what Jameson called the conspiracy film of the 1970s (*All the President's Men, The Parallax View*)" becomes "no longer emblematic at the start of the new millennium. Instead, films of epistemological reversal have become prominent."[55] For Galloway, this is indicative of a shift whereby "the cinema has been delivered from the oppression of unlocatable capitalism (in Jameson's view) only to be sentenced to a new oppression of disingenuous informatics."[56] This is not a radical break but a continuation of the movement from definitive content to definitive form that Jameson traces from Propp to the mid-to-late twentieth century spy or conspiracy thriller. This process is isomorphic with the shift from institutions to modulation, or from disciplinary to control societies. Under the latter conditions, the equivalent of the diegetic conspiracy becomes extradiegetic, rendered through the disingenuity of the film form itself. At this point the viewer as information receiver takes the place of the protagonist as the focal point of narrative deception.

The 'twist' in the plot of disingenuous informatics comes from the completion, at the end of the story, of a body of information previously presented to the user in an incomplete way. Amongst the most notable commercial examples of this mode can be found in the films of M. Night Shyamalan (*The Village* being a particularly notable example), which typically feature a 'surprise' ending that is predicated not on the development, turns and machinations of its depicted characters but instead on the

[55] Alexander R. Galloway, *Gaming* (London: University of Minnesota Press, 2006), p.94.
[56] *Ibid.*

revelation of information which should have been plainly available to the viewer throughout, but which was instead omitted or misrepresented at the level of the films construction *for no other purpose* than to be revealed later. In these types of narrative, the function of the contemporary major is most clearly revealed; it is not the portrayed events or the specific movement and development of key characters that are important, but the accessibility and inaccessibility of crucial information at given points.

Jameson selects the conspiracy thriller as the focal point of his analysis in *The Geopolitical Aesthetic* because of a perceived proximity to the workings of the world system at the time of his writing – when computation is well on the way towards ubiquity, but is still limited in its capacity to digitise, process and execute all possible input. Roughly ten years later, the same can be said, as it is by Galloway, of the plot of disingenuous informatics. Each form represents the most 'open' form of a broader trend in major narrative, the form that allows a glimpse at the underlying processes that define their era. Following the idea of disingenuous informatics into the broader field of popular commercial genres – those that are not characterised by reversal or disingenuity – it becomes possible to grasp the most developed narrative form of the contemporary, control-era major. In the control society, major or 'info' narrative abstracts an algorithmic, procedural model of the steps by which someone beats someone else – the projected ideal of Propp's method as observed by Jameson becoming a technical rather than theoretical possibility.

Visuality

Today, above the algorithmic processes of contemporary major narrative and the algorithmic processes of software in contemporary computer use, the presence of a visual layer is a ubiquitous, normalising characteristic. The computer that is an

increasingly necessary tool for accessing encoded media hides its algorithmic, executive languages through a visual interface, while the contemporary major narratives of commercial cinema strive for ever-greater detail and manipulability of the image through digital processes in order to hide the algorithmic narrative underlying these images.[57] An operating system (OS) such as Microsoft Windows is the most widespread example in computation, presenting a Graphical User Interface (GUI) that asks the user to 'open folders' when they are really clicking a mouse and manipulating numbers. In cinema, as Wheeler Winston Dixon has observed, the presence of both spectacular, digitally-created effects and the emergent algorithmic narrative process maintain a similar relationship:

> …such recent films as Michael Bay's *Armageddon*, Bobby and Peter Farelly's hugely successful *There's Something About Mary*, John Dahl's *Rounders*, Rob Bowman's *The X Files,* Mimi Leder's *Deep Impact*, Tsui Hark's *Knock Off*, Vincent Ward's *What Dreams May Come* (all 1998), and other contemporary films seem concerned exclusively with surface presentation, aided and abetted by the proliferation of digital special effects and postproduction doctoring that makes the impossible seem ordinary, and the everyday seem, paradoxically, airbrush perfect.[58]

On one hand, Dixon is making an argument that it is digital special effects that move filmic narrative towards the algorithmic processes outlined above, but by implication his argument holds for a general understanding of the way the digital as a concept transforms the realm of storytelling. Michele Pierson notes that "[d]igital technologies have not just transformed the filmmaking process at the level of technical operations", that is, in the implementation of new editing and special effects techniques, but that "[t]hey have also transformed the way that the people who make films physically and mentally engage in the production of artefacts."[59] Digital technologies, in terms of Pierson's primary usage, relate to the aforementioned effects

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[57] For a discussion of digital processes in cinema see Manovich, *The Language of New Media*, pp136-155.
[58] Wheeler Winston Dixon. *Film Genre 2000* (New York: State University of New York Press, 2000), p.3.
[59] Michele Pierson, 'No Longer State of the Art: Crafting a Future for CGI', *Wide Angle* vol. 21 no.1 (Jan 1999), p.30.

and technical methods, but in addition to this, at the level of both technique and allegory, they represent a significant development in storytelling processes of the control society. The result of this is what Lev Manovich calls "a new kind of realism", defined by "something is intended to look exactly as if it could have happened, although it really could not."[60] This realism is defined not by proximity to perceived reality, but by an abstracted normalisation of any and every possibility, and is both a visual and a narrative process.

These systems of rendering data and algorithms invisible through the overlaying of visual (or aural, as in the case of Microsoft Windows' sonic indicators of successful or failed actions) elements are central to the thesis of Chun's 'On Software', in which these processes, representing a central feature of computing as analogue for ideology, are referred to as "benign interactions".[61] The emergence of these visuals, and their function in hiding the underlying processes, is also a significant concern in Friedrich Kittler's writing on computers. As Kittler is quick to point out in 'Computer Graphics: a Semi-Technical Introduction', control-era visuality is a significantly different visuality to that presented by film and television in the preceding era:

> Simplified accordingly, a computer image is a two-dimensional additive mixture of three base colors shown in the frame, or parergon, of the monitor housing. Sometimes the computer image as such is less apparent, as in the graphic interface of the newfangled operating systems, sometimes rather more, as in 'images' in the literal sense of the word. At any rate, the generation of 2000 likely subscribes to the fallacy – backed by billions of dollars – that computers and computer graphics are one and the same. Only aging hackers harbor the trace of a memory that it wasn't always so. There was a time when the computer screen's display consisted of white dots on an amber or green background, as if to remind us that the techno-historical roots of computers lie not in television, but in radar, a medium of war.[62]

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[60] Lev Manovich, 'What is Digital Cinema', at http://www.manovich.net/TEXT/digital-cinema.html. Last accessed 11/06/08.

[61] "Software also produces users through benign interactions, from reassuring sounds that signify that a file has been saved to folder names such as 'my documents,' which stress personal computer ownership. Computer programs shamelessly use shifters, pronouns like 'my' and 'you,' that address you, and everyone else, as a subject. Software makes you read, offers you more relationships and ever more visuals." Wendy Hui Kyong Chun, 'On Software', p.43.

[62] Friedrich Kittler. 'Computer Graphics: a Semi-Technical Introduction', *Grey Room* 02 (Winter 2001), p.31.

The techno-historical roots of computer graphics that Kittler refers to here relate to the necessity of both addressing dots on a radar screen and being able to "shoot them down with the click of a mouse."[63] In other words, it is through rendering abstract, underlying processes both accessible and, paradoxically, invisible that computer graphics are distinguished from visual culture occurring before the ubiquitous computers of the control era. This is what Chun defines as the "invisible system of visibility."[64] Since, as traced above, the abstraction of objects into data and the execution of this data as narrative are definitive of the contemporary major, it is clear that this overlying visuality must support these processes in the same way that graphics support the separation of user from hardware in computation. This is why Lovink and Schneider's comments about moving cultural theory away from the icon and towards informatics is a crucial methodological issue in the analysis of major cultural objects in the control period; it is not that the image itself is radically different from the user's perspective, despite the recent claims of William J. Mitchell and David Rodowick, but rather that there is a significantly different technical and political application of the image that emerges in the movement from disciplinary to control eras. [65]

Manovich's *The Language of New Media* opens with a series of 'samples' from Dziga Vertov's *Man with a Movie Camera*, used to illustrate ways in which the key characteristics of digital media are derived from cinema. The implication of this prologue, extended throughout *The Language of New Media*, is that digital media do not significantly differ from analogue media at the cultural level because the computer normalises its abstract languages through the familiarity of forms that these older media provide, and because they both essentially store and retrieve data. Here

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[63] *Ibid.*
[64] Wendy Hui Kyong Chun, 'On Software', p.28.
[65] See William J. Mitchell, *The Reconfigured Eye* (Cambridge, London: The MIT Press, 1992), and David Rodowick *The Virtual life of Film* (Harvard: Harvard University Press, 2007).

emerges a crucial distinction between Manovich and Kittler, predicated on the *function* of the image in the user-computer relationship and its analogues. Where Manovich finds no political difficulty in the comfortable instrumentality that graphical computing affords, Kittler, in 'Protected Mode', violently critiques the "fallacy" that "computers and computer graphics are one and the same" as an ideological function of control that separates user from data and algorithm – for both commercial and political gain. Kittler is clear on the cultural implications of this process:

> This mathematical trick [the hiding of underlying processes by graphics] is ideally suited to software. In an era that has long since abandoned the phantoms of creators or authors, but which through copyright passionately holds on to such historical ghosts for strong financial reasons, the trick becomes a goldmine. In any case, the subjects of Microsoft Corporation did not fall from the sky, but first had to be produced like all of their media-historical predecessors – the readers of books, film audiences and TV viewers. The only problem now is how their subjugation can be hidden from the subjects in order that they fall in step with the global triumphant march.[66]

While Kittler is aware of Deleuze's broader work it is unlikely, due to their respective dates of publication, that he read 'Postscript on Control Societies' before carrying out his writing on computation.[67] Despite this, in 'Protected Mode' he makes a statement that absolutely supports the characteristics of control set out by Deleuze: "[a]lthough there may no longer be any written prohibitory signs that guarantee a power gap, the binary system itself encodes the distinction between commands and data, what the system permits and what, conversely, is prohibited to user programs."[68] The importance of visuality to the control-era major is made clear by Kittler's statements. If narrative, like software, hides the underlying data and coding that is abstracted from all possibility in the control society, then visuals hide the hiding process,

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[66] Friedrich Kittler, *Literature, Media, Information Systems*, p.158.
[67] 'Postscript on Control Societies' was first published in French in *L'Autre Journal* no.1 in May 1990, while Kittler's 'Protected Mode' was first published in German in Ute Bernhardt and Ingo Ruhmann ed. *Computer, Macht und Gegenwehr* in 1991. For an acknowledgement of Kittler's awareness of Deleuze, see John Armitage, 'From Discourse Networks to Cultural Mathematics', p. 36.
[68] Kittler, *Literature, Media, Information Systems*, p.160-161.

making the invisible visible in a way that does not relate at all to its technical function.[69]

In light of Kittler's work, Manovich's claim in the prologue of *The Language of New Media* that: "…in contrast to the cinema, where most "users" are able to "understand" cinematic language but not "speak" it (i.e. make films), all computer users can speak the language of the interface"[70] is highly problematic. While the language of cinema and the languages of computing are characterised by the attempt to render themselves invisible, Manovich's example of the user "speaking" the language of the interface has more to do with understanding how to enter a cinema, buy a ticket and look at the screen, or press play on a video or DVD player, than it does with any of the formal properties of the film itself. In both cases, the underlying language of the object presented to the user is technical and invisible. The experiential dimension of the contemporary major, in its twin guises of visual narrative production and graphical-software computing, is executed in a way that relies on the visual layer to mask its underlying informatic processes from the user. This final example of the cinema and the interface collects the three key characteristics of the contemporary major; code, narrative and visuality. In order to address the technical processes that define the major in the contemporary period, it is essential to find ways to problematise the relationship between visuals, processes and

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[69] Alexander R. Galloway has made this claim for the importance of addressing both informatics and visuals in an interview with Pau Alsina, stating that "the algorithm, not the image, is of crucial importance today. However I maintain that the only way to understand software is to claim first that it is a question of the visual, and then later to assert the algorithmic as the real for which visuality was a helpful symptom. Much writing on the 'information age' or 'cyber culture' misses this crucial point about the visual. Few truly acknowledge that the computer was born not from the age of information but the age of spectacle. Informatics is what Marx would have called a real subsumption – but of what? Of the visual. By this I mean the entire visual episteme handed down from the Enlightenment, seeing as a structure for knowledge acquisition, the 'clarity' of reason, the logos of the eye, and so on. Software is essentially the real subsumption of that episteme. But not at all to preserve it – this is crucial. A real subsumption is always a complete erasure of its object (as opposed to the formal subsumption which merely negates its object in a dialectical inversion). The real subsumption of the visual, its erased 'un', allows informatics both to retain and deny its viability." Pau Alsina, 'Interview: Alex Galloway', http://www.zemos98.org/spip.php?article561. Last accessed 30/04/09.

[70] Manovich, *The Language of New Media*, p.xv.

data. The possibility of a minor practice in the control society is dependent on a grasp of each of these elements and the ways in which they are interrelated.

Chapter 2: The Contemporary Minor

In terms of this thesis, Hardt and Negri's position on cultural production, specifically critical writing and philosophy, is of major importance in considering the minor in the control era. When Hardt and Negri talk about particular schools of theory "pushing against an open door" in attempting to use strategies of "difference, fluidity and hybridity" [71] to combat contemporary major forms, they are highlighting the fact that, under the global conditions of control that their concept of empire reflects, the idea of opposing a notional centre with tactics of distribution is entirely redundant.

> This new enemy not only is resistant to the old weapons, but actually thrives on them, and thus joins its would-be antagonists in applying them to the fullest.[72]

If Empire, as the global condition of the control society, operates through distributed networks that correspond technically to codes, not signs, then it must be from code that the beginnings of a counter-form will build.

As an example of a counter-practice that relates to the cultural production of disciplinary societies, but not necessarily control societies, it is useful to look at seven theses extracted from Jean-Luc Godard's 'counter cinema' by Peter Wollen. These theses outline what can only be described as a classical or foundational model of the difference between mainstream, commercial narrative forms and the "revolutionary, materialist" avant-garde that is opposed to it: [73]

1. *Narrative Transitivity v. Narrative Intransitivity*. (One thing following another v. gaps and introductions, episodic construction, undigested digression.)
2. *Identification v. Estrangement.* (Empathy, emotional involvement with a character v. direct address, multiple and divided characters, commentary.)
3. *Transparency v. Foregrounding.* ("Language wants to be overlooked" – Siertsema v. making the mechanics of the film/text visible and explicit.)

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[71] Michael Hardt and Antonio Negri, *Empire*, p.138. Also see Jeffrey T. Nealon, 'Post-Deconstructive? Negri, Derrida and the Present State of Theory', *Symploké* 14 (2006), pp.68-80, for an extensive examination of Hardt and Negri's claims regarding theory.
[72] *Ibid*.
[73] Peter Wollen, *Readings and Writings* (London: N.L.B, 1982), p.79.

4. *Single Diegesis v. Multiple Diegesis.* (A unitary homogenous world v. heterogeneous worlds. Rupture between different codes and different channels.)
5. *Closure v. Aperture.* (A self-contained object, harmonized within its own bounds v. open-endedness, overspill, intertextuality – allusion, quotation and parody.)
6. *Pleasure v. Unpleasure*. (Entertainment, aiming to satisfy the spectator v. provocation, aiming to dissatisfy and hence change the spectator.)
7. *Fiction v. Reality.* (Actors wearing makeup, acting a story v. real life, the breakdown of representation, truth.)[74]

The difficulty faced by Wollen's theses in relation to contemporary minor practice lies in the way in which the technical, diffuse form and nature of control necessarily effects a change in the form and nature of resistance. Under the conditions of perpetual modulation that exist within control societies, where all difference becomes reduced to indifferent data, the direct opposition of one type of form to another ceases to function productively as counter-practice.

Paul Willemen, in an article called 'An Avant-Garde for the 90s', draws attention to the problematic equation made between avant-garde practice and modernism: "the avant-garde, as a concept, is not prescriptive about the precise characteristics of any given art practice", Willemen writes, while "the notion of modernism reduces artistic practice to a set of formal characteristics, a set of procedures frozen into a specific generic practice."[75] From Willemen's perspective it is quite possible that the theses on 'counter cinema' that Wollen outlines in *Readings and Writings*, specifically related as they are to an avant-garde that is situated in the middle of the twentieth century, may not represent an equivalently functional set of practices for the late twentieth or early twenty-first centuries.

This problem is extended specifically into the conceptual terms of the control society by Critical Art Ensemble in the first chapter of *Electronic Civil Disobedience*. Reiterating Willemen's critique of the applicability of modernist strategies across

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[74] *Ibid.*, pp.79-90.
[75] Paul Willemen, *Looks and Frictions* (Bloomington, Indianapolis: Indiana University Press, 1994), p.143.

techno-historically distinct periods, CAE nonetheless hold forth the possibility of a contemporary avant-garde practice at the level of information, which is really the only level left after ubiquitous digitisation. For CAE, the question "what kind of group configuration *will* gain the most full ranging results, in terms of disturbing the political/cultural landscape?"[76] can only be answered at the informatic level, through "cellular constructions aimed at information disruption."[77] The shift that is evidenced from the specificity of Wollen's seven theses to CAE's broad call for "information disruption" at any possible level is one example of the necessary ways that counter-practices must be considered in relation to the control society. As Deleuze states, "[i]t's not a question of asking whether the old or new system is harsher or more bearable, because there's a conflict in each one between the ways they free and enslave us…It's not a question of worrying or hoping for the best, but of finding new weapons."[78] In addressing the three characteristics of minor literature set out by Deleuze and Guattari, with a view to their contemporary applicability, it is essential to constantly consider the key characteristics of code, narrative and visuality that define the contemporary minor in the preceding chapter of this work.

First Characteristic: *a minor literature does not come from a minor language; it is rather that which a minority constructs within a major language. But the first characteristic of a minor literature in any case is that in it language is affected with a high coefficient of deterritorialization* (Deleuze and Guattari).

In considering this first characteristic of minor literature two key terms quickly become apparent; the presence of the minor *within* rather than against the major, and the high coefficient of deterriorialisation that it effects. The transfer of these aspects

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[76] Critical Art Ensemble, *Electronic Civil Disobedience* (New York: Autonomedia, 1996), p.27.
[77] *Ibid.*, p.28. It must be noted that while this statement ends "…in cyberspace", CAE's discussion and approach at large is rooted in an understanding of 'cyberspace' that is actually closer to Wark's 'gamespace' of ubiquitous, rather than separate, digitisation. It is also worth noting, in relation to this, the possible implications of the turn from computers and the internet towards genetics in their most recent books *Molecular Invasion* and *Marching Plague*, mirroring the expansion of the digital into biological life.
[78] Gilles Deleuze, *Negotiations*, p.178.

to the informatically-defined major forms of the control era is crucial in establishing the foundations of a contemporary minor practice. As Deleuze specifies in 'Postscript on Control Societies', "[i]t's easy to set up a correspondence between any society and some kind of machine, which isn't to say that their machines determine different kinds of society but that they express the social forms capable of producing them and making use of them."[79] In setting up a literal and allegorical correspondence between control societies and computation in Chapter 1 of this thesis it becomes possible for the relevant minor practices to emerge. While "entropy" and "sabotage", the predominant characteristics of much disciplinary-era minor practice, are the passive and active dangers Deleuze locates within societies defined by analogue technology, it is "noise… piracy and viral contamination" that can threaten the control society.[80] It is easy to see entropy and sabotage in the methods that Wollen identifies in Godard's cinema, for example in his opposition of aperture, or "overspill" to closure. These are terms that technically correspond to the analogue, the "thermodynamic machines" with which disciplinary societies are equipped. Noise and the virus, by contrast or extension, relate to digital machines, the machines of the control society that range from personal computers to DNA technology, and serve as the cornerstone of the control-era minor.

In its most general sense noise is the presence of excess in a communications system. It is the subject of processes of elimination from at least 1800; as Friedrich Kittler notes in relation to universal alphabetisation, "to record the sound sequences of speech, literature has to arrest them in a system of twenty-six letters, thereby categorically excluding all noise sequences."[81] Noise appears alongside intelligible information in a communication system but does not render it unrecognisable; it is

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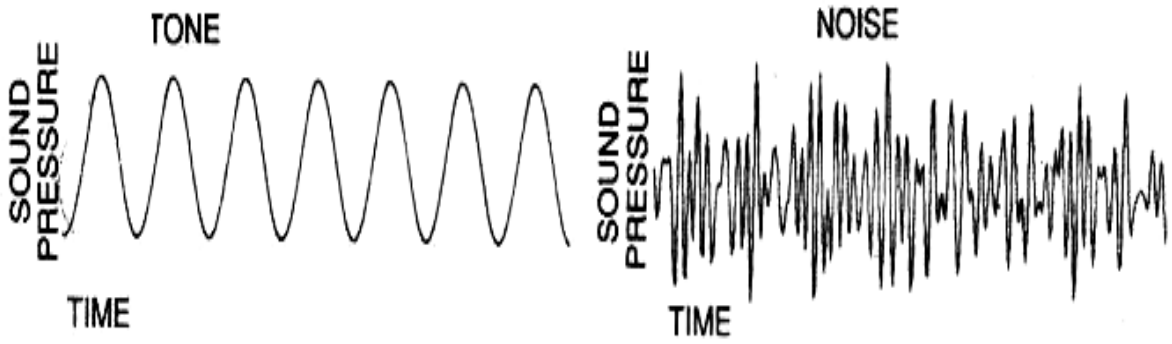
[79] *Ibid.*, p180.
[80] *Ibid*.
[81] Friedrich Kittler, *Gramophone, Film, Typewriter*, p.3.

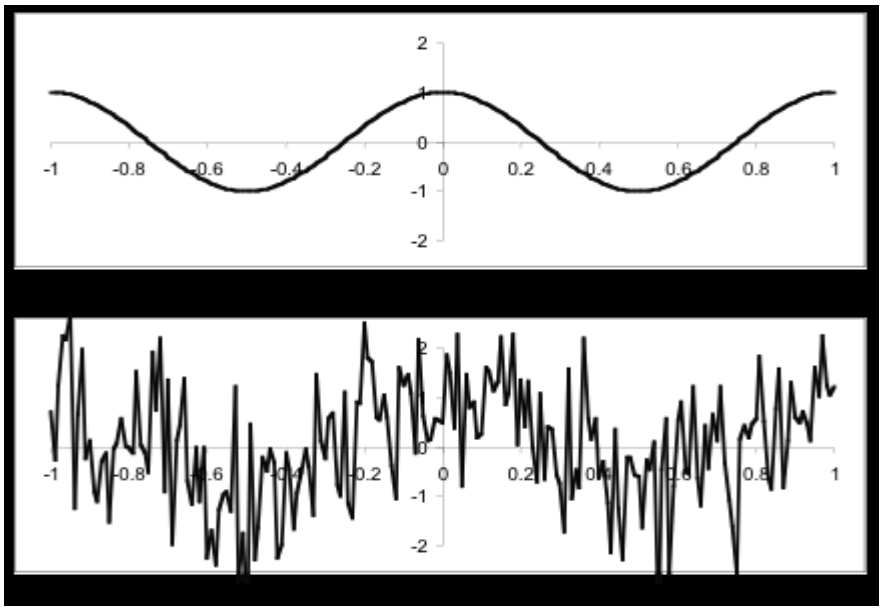
manifested, for example, in snow on a video or television image, or static on a radio signal. The difference between signal and noise in music, as tonal and atonal sound respectively, can be clearly demonstrated visually in the form of periodic and aperiodic sound variations through a loudspeaker, as provided by Johan Sundberg in *The Science of Musical Sounds*:



Example of periodic (left) and aperiodic (right) sound pressure variations [82]

Where the periodic variations result in an unbroken, pure and stable tone, the aperiodic variations result in random, discontinuous tone, or noise. The presence of noise within a received signal, as defined by Darryl Morel in 'Introductory Overview of Electronic Instrumentation', is an "undesirable variation" that "reduces the accuracy and repeatability of measurements" and "creates errors in control systems"; each of these characteristics is both a literal and allegorical manifestation of control-era minor tactics.[83] The relationship between 'pure' signal and signal with noise is represented visually by Morrel as follows:

[82] Johan Sundberg, *The Science of Musical Sounds* (San Diego: San Diego Academic Press, 1991), p.9.
[83] Darryl Morrel, 'Introductory Overview of Electronic Instrumentation', available online at http://cnx.org/content/m13859/latest/. Last accessed 4/02/ 2008.



[84]

Clearly, the signal with noise represented in the lower graph diagram bears a formal similarity to the pure signal shown in the higher one, but displays a high level or variation across the represented curve. As Claude Shannon notes in his 1948 paper 'A Mathematical Theory of Communication', "if a particular transmitted signal always produces the same received signal, i.e. the received signal is a definite function of the transmitted signal, then the effect [of noise] may be called distortion."[85] In an electrical engineering context, noise is the result of random changes in current or voltage; the circuit works in the same way as intended, as represented by the formal similarities between the two signals depicted above, but the outcome is distorted somewhat from the maximum fidelity intended at the design stage. In both these interrelated cases, electrical and informatic, signal and noise together result in an outcome in that is both intelligible and distorted.

This leads to an issue, specifically related to the control society, of the significant difference between digital and analogue noise. For purposes of clarity, the diagrams reproduced above relate to analogue signals since they are intended to show, at the

[84] *Ibid.*
[85] Claude E. Shannon and Warren Weaver, *The Mathematical Theory of Communication*, p.34.

level of technical analogy, the relationship between pure signal and the signal mixed with noise – the minor within the major. As Kittler and Siegert have both noted, the theories of information processing and transmission developed in the 1930s and 1940s by Turing, Shannon and Norbert Wiener that underpin the notion of digital computing are motivated by the technical demands of communication and error minimisation during wartime.[86] Digital technology, before ever being overlaid by human-readable code and software packages, comes into being because of the massive reduction of error made possible by the reduction of all possible communication into alternations of only two possibilities, on or off. Where very small fluctuations in electrical voltage over components, amongst many other causes, can introduce noise to the analogue signal, it is only significant factors causing an 'on' to appear as an 'off', or a 1 as a 0, that can introduce such errors to the digital signal. In *Gramophone, Film, Typewriter* Kittler quotes Turing, "full of pride" about the massive reduction of error that his theoretical discrete state machines, in effect the first digital computers, make possible:

> The prediction which we are considering is, however, rather nearer to practicability than considered by Laplace. The system of the "universe as a whole" is such that quite small errors in the initial conditions can have an overwhelming effect at a later time. The displacement of a single electron by a billionth of a centimetre at one moment might make the difference…It is an essential property of the mechanical systems that we have called "discrete state machines" that this does not occur. Even when we consider the actual physical machines instead of the idealised machines, reasonably accurate knowledge of the state at one moment yields reasonably accurate knowledge any number of steps later.[87]

In digital terms it is no longer possible to induce entropy in a system in order to make it noisy; instead it becomes necessary to manipulate the contained information itself.

This specifically digital understanding of noise is addressed by Lev Manovich in 'The Paradoxes of Digital Photography'; responding to William Mitchell's claims,

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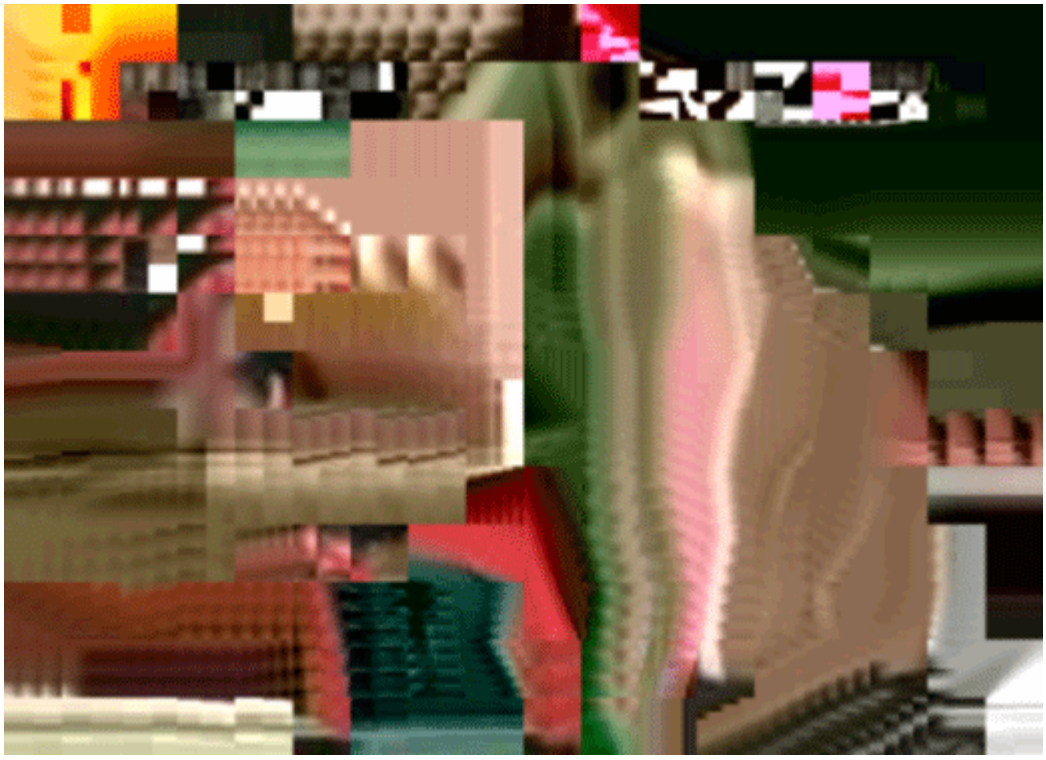
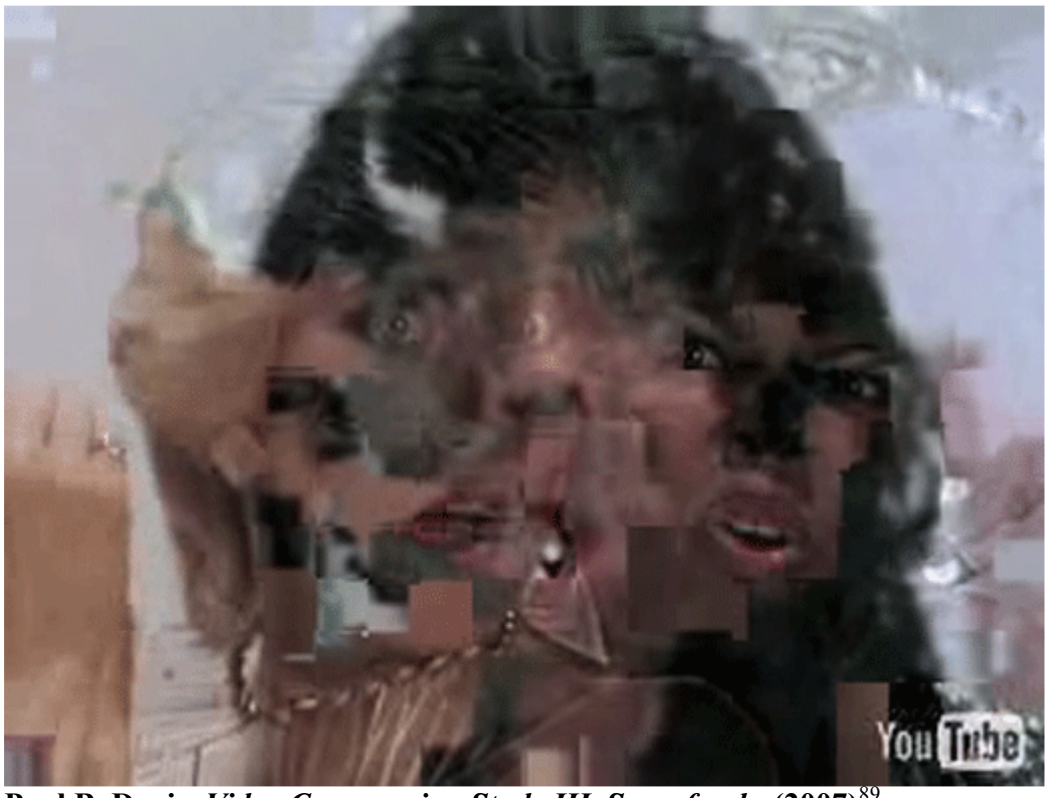
[86] See Kittler, 'Introduction' and 'Typewriter' in *Gramophone, Film, Typewriter*, and Bernhard Siegert, *Relays*, pp.247-264.
[87] Alan Turing quoted in Kittler, *Gramophone Film Typewriter*, pp.245-246.

made in great detail in *The Reconfigured Eye*, about the technical distinction between analogue and digital photography Manovich demonstrates that the distinct cause of digital noise is missing information rather than entropy. Focussing on Mitchell's statement that "discrete states can be replicated precisely, so a digital image that is a thousand generations away from the original is indistinguishable in quality from any one of its progenitors", Manovich draws attention to the way in which digital images lose information, and as a result quality, through compression – the elimination of information incorrectly deemed nonessential to an image by a given compression algorithm in order to reduce file size.[88] This process, which is a near-ubiquitous aspect of contemporary digital image distribution and reproduction, serves to minimise file transfer speed over a network and conserve space on the computer on which the image is stored, and results in various distortions called 'artefacts'. The creative possibilities of this process, in terms of the visual aspect of the control-era minor, can be seen in the work of the artist Paul B. Davis, who maximises the presence of compression artefacts by compressing the same video many times to create his *Video Compression Studies*. Davis's videos both visualise the distinctive technical makeup of digital noise and foreground the technical fact that, where entropy remains a noise source in terms of the analogue, the digital is not completely proof against distortions but simply requires a different method. Instead of entropy it is the manipulation of unmeasurable, overwritten, erroneous or nonexistent data that introduces noise to the digitally-coded signal.

[88] William J. Mitchell, *The Reconfigured Eye*, p.6.



Paul B. Davis, *Video Compression Study II* (2007)

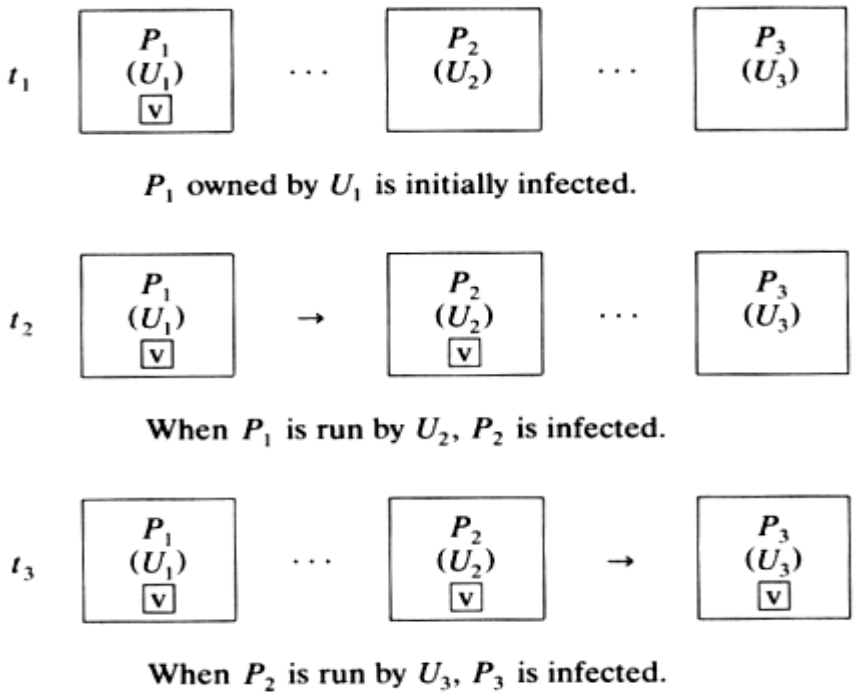


Paul B. Davis, *Video Compression Study III, Superfreaks* (2007)[89]

[89] From http://www.seventeengallery.com/index.php?p=2&id=42&iid=5, last accessed 06/10/08.

As Claude Shannon has shown, the process through which a signal is affected with noise always takes place at the point between the sender and the receiver. It is not the case that a signal is noisy to begin with, but rather that it is coded in a way that cannot prevent noise from emerging through the transmission process; this is why coding is so essential to a control-era major practice, since its ultimate aim is to create a perfectly-coded signal that abstracts events and bodies while eliminating all possibility of noise.[90] The process of addition after the completion of the original signal is conceptually comparable to that of virus transmission, although the significant distinction, as Deleuze points out, is in the respective activity and passivity of the two.

1.2 How Do Viruses Spread Through Systems?



Virus transfer in a time sharing system [91]

[90] See Claude Shannon and Warren Weaver, 'Communication in the Presence of Noise', in *Claude Elwood Shannon: Collected Papers* (New York: Wiley, 1993), pp.160-172, and *The Mathematical Theory of Communication*.
[91] Fredrick Cohen, *A Short Course on Computer Viruses* (New York: Wiley, 1994), p.3.

In computing terms, a virus is "a program that can 'infect' other programs by modifying them to include a, possibly evolved, version of itself."[92] A condition of a computer virus's effectiveness is that it exists within, without necessarily impairing the functionality of, the code of the host program. It is specifically this characteristic that gives the computer virus its biologically-oriented name; computer viruses, as one of their foundational theorists Fredrick Cohen notes, are not necessarily harmful or dangerous, as biological ones are, but simply reproduce in the same way, attaching within a host program as a biological virus attaches itself within a host cell. The contrast between Cohen's view of viruses as specifically technical entities, carrying no automatic association with harm or damage, and the ones provided on the Microsoft Corporation website is telling in terms of the threat viruses represent to networked control:

> Computer viruses are small software programs that are designed to spread from one computer to another and to interfere with computer operation.
>
> A virus might corrupt or delete data on your computer, use your e-mail program to spread itself to other computers, or even erase everything on your hard disk.
>
> Viruses are most easily spread by attachments in e-mail messages or instant messaging messages. That is why it is essential that you never open e-mail attachments unless you know who it's from and you are expecting it.
>
> Viruses can be disguised as attachments of funny images, greeting cards, or audio and video files.
>
> Viruses also spread through downloads on the Internet. They can be hidden in illicit software or other files or programs you might download.[93]

What is specifically interesting in terms of viruses and minor practice, following Cohen's formal account, is the purely technical qualities they exhibit; the code of the computer program, or the organism in the instance of a biological virus, does not immediately begin to function in an opposite, disordered or entropic way when a

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[92] *Ibid.,* p.2.
[93] 'What is a Computer Virus', at http://www.microsoft.com/protect/computer/basics/virus.mspx. Last accessed 26/02/08.

virus attaches within it, but in the same way with new information, be it a machine code, DNA or RNA, added to it.

The idea of noise as an essential component of communication, with its exclusion as an 'unnatural' or nonhuman imposition, is extended into the realm of human interactions in the work of Gregory Bateson, as evoked by Friedrich Kittler in conversation with Paul Virilio. Kittler makes a claim for a model of person-to-person communication that is modelled on Shannon's technical diagram, and by extension must include noise alongside the clean signal that psychoanalysis seeks to extract from such relations, stating that:

> [p]ut bluntly, it seems to me that Freud's theory about the relationship between men and women is sillier than the theory Bateson elaborated on the grounds of feedback chains. To be able to show that a conversation is infinitely malleable seems to me a considerably more sophisticated description of social linkages than one that relies on internalised images involving an incessant and lifelong struggle.[94]

Kittler's claim responds to the centrality that Bateson attributes to communication theory in both *Steps to an Ecology of Mind* and his contributions to *Communication: the Social Matrix of Psychiatry*. For Bateson, the ambiguity of a tone of voice or accompanying gestures in a conversation, elements that Ferdinand de Saussure excludes from his *Course in General Linguistics* in order to construct a total model, are more important than the words themselves. Despite this, it is the latter that control-era sedentary thought designates as the strong signal due to the possibility of reducing it to code under current technical conditions. According to Bateson:

> [w]hen boy says to girl, "I love you," he is using words to convey that which is more convincingly conveyed by his tone of voice and his movements; and the girl, if she has any sense, will pay more attention to those accompanying signs than to the words.[95]

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[94] Paul Virilio and Friedrich Kittler, 'The Information Bomb', p.86. Also see Roland Barthes, *Camera Lucida* (London: Vintage, 1993), p.36: "Society, it seems, mistrusts pure meaning: it wants meaning to be surrounded by noise (as is said in cybernetics) which will make it less acute".

[95] Gregory Bateson, *Steps to an Ecology of Mind* (Aylesbury: Intertext Books, 1972), p.418. McKenzie Wark has noted the early engagement with informatics that , alongside his "disregard for the property rules of academic fields" distinguishes Bateson's work: "[a]t the moment when the foundations of the ideology of the vectoral class [i.e. information capitalists] were in formation, in information science, computer science, cybernetics, and when information was being discovered as the new essence of

These elements, since they contain within them the constituents of many other meanings with no specific formal distinction, share a fundamental technical characteristic with noise from the perspective of the control-era major. They cannot be exhaustively coded, nor can they be eliminated from the communication model of a face-to-face conversation; it is for this reason that for Bateson they are essential while for Saussure they must be excluded. The main project of minor practice and theory in the control society must be the retention of noise alongside signal, the arresting of the exclusory coding processes that define the rise of control societies in the twentieth and twenty-first centuries.

Two things are essential to note in relation to noise and the virus as prospective modes of opposition. Firstly, they are both *formal*. They represent material changes to the formal qualities of the transmitted information, be it genetic or electrical, and are indifferent to content. Secondly, they are both *additive* rather than transformative; the information itself is not turned into an entirely different entity, but rather an excessive version of itself, becoming distorted through the additions or subtraction of data. These two qualities make noise and viruses particularly important in delineating a minor practice within the control society, where the major language is one of pure form that is indifferent to content. The centrality of form to minor practice after control, and the related foregrounding of hypertrophy over the backward movement that the idea of resistance implies, is stressed by Alexander Galloway and Eugene Thacker in *The Exploit: A Theory of Networks*.

> There are two directions for political change: resistance implies a desire for stasis or retrograde motion, but hypertrophy is the desire for pushing beyond. The goal is not to destroy technology in some neo-Luddite delusion but to push technology into a hypertrophic state, further than it is meant to go.[96]

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social and even natural phenomena, Bateson alone grasped the significance of these nascent concepts." *A Hacker Manifesto,* note to paragraph 035.

[96] Alexander R. Galloway and Eugene Thacker, *The Exploit* (Minneapolis, London: University of Minnesota Press, 2007), p.98.

Hypertrophy is a term derived from medicine, relating to the excessive growth of a muscle or organ without an increase in the number of cells it is comprised of. It is a model of excess over resistance, a pushing too far *with*, until new possibilities arise, rather than a pushing against to arrest or reverse. To this end, given the purely technical mode of control to be countered, Galloway and Thacker propose a confluence of technical and formal appreciation with theory, a "*radical interdisciplinarity"* that also exhibits a will to "*carry theorization, and its mode of experimentation, to the level of protocological practice.*"[97] It is notable that Galloway and Thacker end their speculation on counter-practice with a statement that "today to write theory means to write code"[98], invoking the writer and activist Geert Lovink's call for "no more vapour theory anymore."[99] If there is to be a minor practice in relation to control, it must be one that functions both technically and allegorically, at the levels of indifferent code, narrative and visuality that allow control societies to function. The first characteristic Deleuze and Guattari set out in *Kafka,* adapted for conditions of indifferent informatics, provides a cornerstone for this form, a set of possibilities that can be applied both technically and allegorically at each of the three levels of code, narrative and visuality.

Second Characteristic: *the second rule of minor literatures is that everything in them is political… cramped spaces forces each individual intrigue to connect immediately to politics. The individual concern thus becomes all the more necessary, indispensable, magnified, because a whole other story is vibrating within it.* (Deleuze and Guattari)

If the first characteristic of minor literature, adapted into the control era, provides a general set of possibilities at each of the levels of code, narrative and visuality, the second characteristic is more closely focussed on the function of narrative. When all

[97] *Ibid.*, p100. Italics in original.
[98] *Ibid*.
[99] Geert Lovink, *Dark Fiber* (Cambridge, London: The MIT Press, 2003), p.9.

possibility is first coded, then executed as narrative and finally overlaid with visuals, the interruption of underlying informatics through noise is always a political action – at the formal level, which is the crucial level under control conditions. To this end, the idea of the "whole other story vibrating within" as an introduction of noise (or the promotion of measurable data of negligible importance, one of the practical modes of nonexistence that Galloway and Thacker outline) to coded narrative is an essential component of the contemporary minor, and to properly analyse this it is necessary to return to Propp.

What is interesting about Propp's method, in thinking about counter-control as signal and noise, is the specificity he attributes to a particular type of "absolutely authentic" tale, exemplified by the A.N. Afanás'ev volume *Naródnye Rússkie Skázki* from which he derives virtually all of his examples.[100] The distinction Propp draws between tales such as those from the Afanás'ev collection, that are suitable for compiling into codelike expressions, and "corrupt" tales that render completion of the process impossible is a distinction between a narrative that can be coded to produce pure signal and one that always produces a signal-with-noise.

> All kinds of foreign influences alter and sometimes corrupt a tale. Complications begin as soon as we leave the boundary of the absolutely authentic tale. In this relation, the Afanás'ev collection is surprisingly gratifying material. But the tales of the Brothers Grimm, *presenting the same scheme in general*, display a less pure and stable form of it.[101]

To examine the tales collected by the Brothers Grimm today, with both Propp's method and the idea of info-narrative that develops from it to define contemporary major form, is to find the nucleus of a narrative form that resists Propp's methodology and its derivants, finding the "corrupt" elements that prevent code from being executed with maximum efficiency. Following from this, it should be noted that throughout this section the claims made about narrative in the folktales of the

[100]Vladimir Propp, *Morphology of the Folktale*, p.100.
[101] *Ibid.* Emphasis mine.

Brothers Grimm are in direct relation to the methodology delineated by Propp and the associated forms of info-narrative that follow it as set out in Chapter 1.[102]

Throughout the tales of the Brothers Grimm there is an interrelationship between the strong signal of formalised narrative that is codable as strong signal and the noise of information that is either divergent, extraneous and excessive or conspicuously absent and that does nothing to progress the story. Particularly striking, occurring in virtually every story compiled within the collection, is the presence of irregular 'micro-narratives' distributed throughout tales that would otherwise fit Propp's system. The presence of these irregular, nonfitting parts is consonant with the second rule of minor literature that Deleuze and Guattari outline, producing "cramped spaces [that] force each individual intrigue to connect immediately to politics" and making "the individual concern...more necessary, indispensable, magnified, because a whole other story is vibrating within it."[103] This is a recurring characteristic of the tales collected by the Grimms, in contrast to the collection favoured by Propp. The disjunctive passage of time that surrounds and extends the 'major' narrative in the Grimms' collection, forcing the linear central story to become distorted, is a recurrent formal property of the tales.

In the Grimms' collection noise affects signal constantly through the positioning of sequences of events. A tangent story, frequently taking up several months or longer of diegetic time, and taking in more than enough detail to justify its own separate title and section, appears crammed into a few lines at beginning, middle or end of a comparatively brief and simplistic tale that nonetheless takes up many more words and pages. Individual stories are in fact combinations of stories, their atomic interrelationships neither destroying the tale nor allowing it to be absolutely encoded.

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[102] There are undoubtedly many preceding historical claims to be made about the formal and sociological aspects of folktales and myth, but in order to retain a focus on the question of control-era major and minor forms and their development I omit the discussion of these broader issues.
[103] *Kafka*, p.17.

'The Three Little men in the Woods' (no. 13) is as good an example as any of this oscillating characteristic. For the most part the 'major' tale concerns a virtuous young girl, sent to her death in the woods by a hateful stepmother only to find fortune and consequently bring about the jealous stepmother's death. In addition to this, however, the first twenty lines tell the divergent tale of the stepmother's earlier marriage to the girl's father, predicated on a ritual whereby a boot is nailed to a wall and filled with water – its capacity to either hold or spill it determining whether the marriage would take place or not.[104] The next morning, as the tale has it – shifting from a scheme of months to a scheme of days in a single paragraph break – the stepmother hates the daughter sufficiently to send her into the woods in a paper dress to hunt for strawberries in winter, an action intended to cause her certain death. The brief but cramped account of ritual in the opening paragraph makes way for the body of the major story, but is still present within the overall form of the tale instead of being removed for sake of brevity, clarity or consistency. It does not serve to develop the characters in a way that might later serve the plot, nor provide an especially practical way of introducing the stepmother to the story so that she can motivate the future events. This is the type of corruption that Propp attributes to the Grimm's tales, and as such provides an example of the informatic processes that can reduce the efficiency of the info-narrative of which Propp provides an early methodological example.

This kind of narrative becoming is highly characteristic of the Grimm-type folktale, extending beyond divergences around a major story arc into the progression of the story itself. The Grimms include a large number of tales in their collection which arrive at their conclusion less by causality than by a diffuse internal logic that

[104] This motif of a character's fate hinging on the capacity of a holey object to hold water is actually a recurring one across a large number of folktales, providing a formal illustration of the noisy relationship these kinds of minor tales at times maintain with even the most elementary logic. See, for another example, 'The Horned Women', in Joseph Jacobs ed. *Irish Fairy Tales* (Ware: Wordsworth Classics, 2001), pp.32-34.

is in clear contrast to the step-by-step procedurality that 'major' storytelling demands. At the end of 'Brother and Sister' (no.11) a *Deus ex Machina* in the form of a ghost appears to foil a jealous, lying witch, who ends up 'miserably burnt' for her evil ways while her complicit daughter is 'torn to pieces by wild animals.' This violent sequence of events concludes, in a single eight-line paragraph, the tale of a brother and sister who found their fortune after the brother had been turned into a roebuck by a talking brook. The final lines of the tale alone contain two emergences of irrelevant information; the ghost arrives to 'solve' the story without any foreshadowing, and this emergence immediately follows a briefly-detailed sequence in the witch's daughter masquerades as a murdered queen in order to attain riches, disguising the fact that she had only one eye by always lying on one side. These events, which frame the ultimate ascendance to fortune of the brother and sister, are entirely unconnected to the major plot arc of the tale.

It is the way in which these divergences occur, arresting and diverting the majority of the plot events in a constant process of combination, irrelevance and absence, which makes the Grimm-type-folktale important in thinking about control-era minor narrative. When viewed alongside Propp's insistence that they lack purity and stability, and Jameson's suggestion that a perfection of Propp's method would provide a model of executive control-era narrative, the Grimms' tales emerge as a prototypical minor counterpart to prototypical major form. The oscillations and subtractions that the Grimms' present disturb the logical procedure of the tales in a way that does not render them useless or unreadable from the perspective of a human user, but which makes them impossible to perfectly code under the conditions of Propp's methodology or its later technically-influenced developments (at least as far as the present day). When an overarching narrative arc, forming a nominal, statistically-analysable major story, contains within it flurries of irrelevant events and

useless or missing information, the entirety represents a model of noisy but nonetheless intelligible narrative – a nascent model of minor practice.

Since the procedure of info-narrative, following that of programming, is to reduce actual events to a formal model, it is useful to look for paradigms for counter-practice in theories of material form such as sculpture. In considering the ways that irrelevant or missing information can affect a formal narrative model as noise, the concept of *informe* that Rosalind E. Krauss extracts from George Bataille's *Documents* in order to create an alternative history of visual art in *The Optical Unconscious* (1993) is highly instructive. *Informe* does not represent an opposite of form, or a resistance to it, but an unfolding or extension of disorder within it; *informe* represents "a state of dissolve [that] brings on the experience of formlessness, seeming to overwhelm the once-bounded object"[105], or the pushing beyond form into hypertrophy. Krauss not only establishes the practical distinctions between form and *informe* but determines a symbiotic interrelationship between the two that is consistent with the formal models of signal/noise, vector/virus and, ultimately, major/minor:

> It is easy to think of *informe* as the opposite of form, to think of form versus matter…Instead, let us think of *informe* as what form itself creates, as logic acting logically to act against itself within itself, form producing a heterologic. Let us think of it not as the opposite of form but as a possibility working at the heart of form, to erode it from within…To create a kind of mis-play, but one that, inside the system, is legal.[106]

The informatic models that the tales in the Grimms' collection manifest, patterned for the most part but run through with variously irrelevant, divergent and absent information, are a crucial model for considering a contemporary minor practice. Their procedure is similar to that at work in Kafka, whose books and stories, *The Castle* in

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[105] Rosalind E. Krauss, *The Optical Unconscious* (Cambridge: The MIT Press, 1993), p.137. The one area where Krauss's use of *informe* becomes problematic is in terms of motion; Krauss specifically likens *informe* versus form to "the spring winding backward, like clockwork," (p.167) whereas the retrograde motion this implies is at odds with the idea of pushing beyond that *informe* is presented as throughout her deployment.

[106] *Ibid.,* pp.166-7.

particular due to its literal as well as conceptual unfinishedness, represent both interminably ongoing sequences of information and static, faltering passages.

Where Kafka's stories begin and end in indeterminacy, however, in the folktale the floating point of focus is borne out not only in the nomadic nature of the structures, but in the familiarity of the details, whereby the 'quick' or passing opening of a tale is often clearly an echo of a completely different tale which is quickly passed over and rendered indeterminate. 'The Knapsack, the Hat and the Horn' (no. 54) is a particularly notable example of this. Opening with the characteristic setup of the 'poor brothers (often either three or twelve) going out to seek their fortune' model that appears throughout many collections,[107] the tale drives its patterned, major narrative into excess, reaching a conclusion in which the youngest brother, archetypally a virtuous and kind character who succeeds in spite of impediments, ends up destroying the world with his three items, a knapsack which summons soldiers, a hat which causes cannons to fire, and a horn that causes building and walls to be ruined, before finally ruling as king over a post-apocalyptic ruin. These actions are set out in the final six lines of the tale:

> …the horn still remained to him, and in great anger he blew it with all his strength. Instantly all walls, fortifications, towns and villages, toppled down, and crushed the king and his daughter to death. And had he not put down the horn and blown just a little longer, everything would have been in ruins, and not one stone would have been left standing on another. Then no-one opposed him any longer, and he made himself king of the whole country.[108]

Following Jameson's description of the indifference of late-capitalist narrative, where "villains can be transformed into heroes at the flip of a switch", this is a story that appears to move along a heroic story arc but ends up switching to its inverse; within

[107]In which typically the youngest travels the longest, the older boys having turned back upon finding some material prize like gold or silver, and finds the greatest reward. This may be in the form of magic items of modest appearance (a hat, a knapsack), and with which he does good to everybody, winning first spiritual and ultimately material wealth far beyond that attained by the others. See, for example, 'The Twelve Brothers' (no. 9), 'The Three Sons of Fortune' (no. 70) in *The Brothers Grimm* and 'Jump into my Sack' in Italo Calvino's *Ten Italian Folktales*.

[108] Brothers Grimm. *Complete Fairy Tales* p.227.

the logic of major narrative, this closing twist paradoxically both renders irrelevant and extends the pattern of the tale's preceding events. The older brothers are greedy or lazy, as is always the case in this kind of story, and give up their search with progressive ease once they find silver and gold respectively, but the youngest, despite the apparent character-building difficulty and honesty of his preceding endeavour, defies expectations of heroism to become a monster. His brothers mock him and his items when he returns with them, but this is not resolved, as it ought to be in the 'pure' structural form proposed by Propp, with the true worth of the items, and ultimately the hero, being revealed. A forward motion towards the hero's redemption and success is felt throughout the tale, but is ultimately derailed in a way that destroys the entire world that it constructs. This collapsing of distinctions, between the discrete arrangements of units that archetypes represents and the formalised narrative that they unfold, introduces noise to the perfectly-codable function of an otherwise major narrative.

In thinking about the tale as a model of the oscillation between major signal and minor signal-with-noise it is important to consider its relationship with the version of myth that is encoded, as a function of major narrative, by structuralism. In *Fairy Tale as Myth, Myth as Fairy Tale* the prolific scholar of tale and myth Jack Zipes equates the relationship between the two with the coding of the former to produce the latter, stating that:

> The fairy tale is myth. That is, the classical fairy tale has undergone a process of mythisisation. Any fairy tale in our society, if it seeks to become natural and eternal, must become myth.[109]

Contrasting Zipes' approach, in the 'Becoming-Intense, Becoming-Animal, Becoming-Imperceptible…' chapter of *A Thousand Plateaus* Deleuze and Guattari

[109] Jack Zipes, *Fairy Tale as Myth, Myth as Fairy Tale* (Lexington: University Press of Kentucky, 1994), p.5.

make a crucial distinction between the myth and the tale that is a distinction between signal and signal/noise:

> Must it not be admitted that myth as a frame of classification is quite incapable of registering these becomings, which are more like fragments of tales? Must we not lend credence to Jean Duvignaud's hypothesis that there are 'anomic' phenomena pervading societies that are not degradations of the mythic order but irreducible dynamisms drawing lines of flight and implying other forms of expression to those of myth, even if myth recapitulates them in its own terms in order to curb them?[110]

These "anomic phenomena" are comparable to the tone of voice or gesture in Bateson's communication model. Myth, in the form Deleuze and Guattari critique in their reading of Lévi-Strauss, is the major narrative output of sedentary thought; it is a model of a story that, while it may begin on a field of background noise, becomes progressively ordered by the actions of a singular hero whose characteristics are definitive.

The hero of myth, as opposed to the tale, is always given a heroic name (Theseus, Odysseus), and his children and lovers are branded by the repercussions of his actions, which are themselves always legitimised in terms of an ordering body (the Gods) that operates, like code, at a transcendent level behind and above the world of events. The passage of time across individual myths is marked through familiarity with these named characters and their legacies, and is always proceeding in an immutable direct line. In this way the relationship between mythical stories and characters is reflected in the text as one of perpetual modulation – the invisible actions of gods or code processes.

It is the addition of noise to this process, through irrelevant or absent information, the addition of "whole other stories" vibrating within a patterned informatic flow, that constitutes political action in the control era. This is why the idea of everything in a minor literature becoming political, the second characteristic of minor literature, is a crucial aspect of the control-era minor. When all actions become indifferently

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[110] *Ibid*., p.262.

abstracted as formal process, removing the possibility of an outside or an oppositional movement, then the disruption of this process through informatic procedures becomes the essential mode of counter-practice.

Third Characteristic: *the third characteristic of minor literature is that in it everything takes on a collective value…scarcity of talent is in fact beneficial and allows something other than a literature of masters*. (Deleuze and Guattari)

In contrast to the strong signal of myth as encoded in the control era, the heroes of the tale are often not given names at all beyond 'the boy' or 'the youngest brother', or else they are given a name that is related only to the specifics of the discrete tale in question and never referred to again (Snow White, Hansel, Gretel.) Voices that appear out of nowhere to lend help or advice are left unattributed and disembodied, and this serves the purpose of constantly denying the perpetual modulation effected by gods in the mythic narrative. As noted above, the Grimm-type tale as a narrative model is both linear and distorted. Errant information takes the plot in a variety of directions at the micro level, spreading outwards until a point of resolution can be reached, a cut-off point that arbitrarily separates each discrete tale from the continuous mass. The distinction between structurally patterned tale-as-myth, and between form and *informe*, connects Deleuze and Guattari to Krauss in the concept of the human/animal hybrid that takes the place of the hero. In myth the two terms – human and animal – are only combined by way of punishment after a human transgresses in the eyes of the gods.[111] Human/animal as a process of becoming is never conjunctive in these types of story. This has the effect of placing terms in a

[111] Critical Art Ensemble observe that "[a] central text for issues of transformation, synthesis, and recombination is Ovid's *Metamorphoses*. This work is a full compendium of becomings that reveal the rules of who has the power and ability to rearrange the natural order, and explains the consequences of such arrangements. Ovid offers two key rules about interventions in the natural order. The first is that creation, invention, and movement beyond the flow of the logos is limited to the will of the gods. The second is that such activity among humans (when not guided by the hands of the gods) will end in disaster. Punishment for such transgressions is contained within the process of recombination." Critical Art Ensemble, *Molecular Invasion* (New York: Autonomedia, 2002), p.20.

hierarchical order from A to Z, God>'Higher' Man (e.g. Theseus)>Man>Animal, a process of abstraction into distinct categories, a procedure critiqued by Deleuze and Guattari in *a Thousand Plateaus*:

> Is it by chance that structuralism so strongly denounced the prestige accorded the imagination, the imitation pervading the entire series and carrying it to its terms, and the identification with this final term? Nothing is more explicit than Lévi-Strauss's famous text on totemism: transcend external resemblances to arrive at *internal homologies*. It is no longer a question of instituting a serial organization of the imaginary, but instead a symbolic and structural order. It is no longer a question of graduating resemblances, ultimately arriving at an identification between Man and Animal at the heart of a mystical participation.[112]

Krauss outlines a similar predisposition in the history of art that she writes against in *The Optical Unconscious*; the concept of form that both Deleuze and Guattari and Krauss move towards is suggestive of an approach based in the abstract, topological mode of the control society. Similarities between humans and animals are configured at the level of biological information rather than their surface distinctions of appearance, producing characters that are not higher or lower but rather oscillating between states of being.

Deleuze's 'The Mystery of Ariadne According to Nietzsche' here becomes a vital text in thinking through the way scarcity of talent functions within the contemporary minor. In reading the Theseus-Ariadne-Minotaur myth Deleuze presents a critique of heroism as a model of the major text in theory and practice:

> Theseus appears to be the model of a text in the second part of *Zarathustra*, "On Those Who Are Sublime." It concerns the hero, cunning and skilful at solving riddles, passing through the labyrinth and subduing the bull…The higher man claims to carry humanity to perfection, to completion. He claims to recuperate all the properties of man, to overcome alienation, to realize the total man, to put man in the place of god, to turn man into a power of affirmation that affirms itself. But in truth man, even the higher man, does not know what it means to affirm. He merely presents a caricature of affirmation, a ridiculous travesty. He believes that to affirm means to bear, to assume, to endure an ordeal, to take on a burden. He measures

[112] Gilles Deleuze and Félix Guattari, *A Thousand Plateaus*, p.260; this excerpt makes specific reference to Claude Lévi-Strauss, *Totemism*, trans. Rodney Needham, p.78.

> positivity in terms of the weight he bears and confuses affirmation with the exertion of his tense muscles.[113]

This evocation of the mythic hero places him in the position of solving, striving and battle, overseen by an invisible, free-floating power that prevents his actions from truly achieving affirmation. This is a model that serves the counter-practitioner of the sovereign or disciplinary periods perfectly but, as the function of the gods demonstrates in such myths, is insufficient when power becomes perpetual modulation.

The Minotaur, who occupies an undecidable position between man and bull, is denied the possibility of being a half-man-half-bull in major narrative because there is no room for combination in the patterning that defines the control era. In being at home within the formal model he occupies, the labyrinth, the bull-man represents true superiority in the minor sense of ethics, a superiority that refuses to hold itself up in opposition to its surroundings and that manifests itself in a spirit of lightness and ease that *pushes through* rather than resisting. This conception of the hero and the major artist is echoed in *The Optical Unconscious*, where Krauss equates the becoming-animal with the cave painting and with *informe* in contrast to the formally-encoded artwork, stating that:

> [t]o attain the formal coherence of the animal's structure is nonetheless to descend into a condition of *informe*, for it is to blur the distinctions between human and animal and thus to produce a formal rupture that goes deeper than any apparent form.[114]

The Minotaur for Deleuze and Krauss manifests a scarcity of talent in form and *informe* in the same way that the undecidable human-animal combinations in the tale do. The bull-man, unlike the disciplinary-period hero or artist, has no interest in

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[113] Gilles Deleuze, 'The Mystery of Ariadne According to Nietzsche', *Essays Critical and Clinical*, trans. Daniel W. Smith and Michael A. Greco, (London: Verso, 1998), p.100.

[114] Krauss, *The Optical Unconscious*, pp.156-7. Krauss connects the becoming-animal of *informe* to the cave-painting that might represent a visual companion to the tale form at an earlier point in her discussion, stating that "This will towards self-defacement, this antinarcissm, is borne out of the hideousness of the representations of humanity within the caves. On the same wall as the noble bison and the mighty mammoth one finds humans only as grotesques" (p.152).

solving the riddle of the labyrinth or creating an opposite of form, despite being imprisoned within it. Theseus, for Deleuze, "subdues monsters, poses riddles, but knows nothing of the riddle and the monster that he himself is." He "does not understand that the bull (or the rhinoceros) possesses the only true superiority," and instead sets about eliminating *informe* from form by destroying the " light prodigious beast deep within the labyrinth…who also feels at ease in high places, a beast who unharnesses and affirms life."[115] Equally, Krauss derives two images for the history of art, that of form or pure signal and that of *informe* or signal/noise, proposing the master image of the minor art, the "art that began in the caves," to be "the Minotaur, not narcissus."[116]

The idea of a scarcity of talent as a crucial aspect of contemporary minor practice is suggested theoretically through Deleuze, Guattari and Krauss. It is essential at this point to reiterate the technical dimension of narrative in the control, era, and to work through the practical implications of scarcity of talent as a contemporary concern. Towards the end of *The Exploit* Galloway and Thacker speculate that "future avant-garde practices will be those of nonexistence."[117] The apparent impossibility that this statement entails is resolved through a definition of existence that is relative only to a society of control that necessitates a counter-theory; when control is indifferent and ubiquitous, affected through data, systems and networks, the concept of nonexistence becomes a possibility:

> But still you ask: how is it possible not to exist? When existence becomes a measurable science of control, then nonexistence must become a tactic for any thing wishing to avoid control…Thus we should become devoid of any *representable* identity. Anything measurable might be fatal.[118]

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[115] Deleuze, *Essays Critical and Clinical*, p.100.
[116] Krauss, *The Optical Unconscious* , p.168.
[117] Alexander R. Galloway and Eugene Thacker, *The Exploit*, p.136.
[118] *Ibid.*

Galloway and Thacker's prospective tactics of nonexistence include "nonexistent action", "unmeasurable or not-yet-measurable human traits" and "the promotion of measurable data of negligible importance."[119] As seen in the undecidable human-animal figure of the tale, these are tactics of digital noise, the central technology of the control-era minor. In the same way that Galloway and Thacker's concept of existence relates specifically to control, control that has mapped the entirety of space in code, the concept of talent extracted from Deleuze and Guattari relates only to the equivalent major cultural formulation – the application of technical ability to coding and patterning. In this light, scarcity of talent becomes scarcity of the will to exhibit talent, even apparently revolutionary applications of talent, because it represents the entry-code to the major marketplace. Scarcity of talent becomes nonexistence in relation to the capacity of a major cultural marketplace to abstract – alongside the ability to apply this abstraction to counter-forms. As Critical Art Ensemble remind us in *Digital Resistance*, scarcity of talent relates to the separation of technical ability from major, commercial applications; "[h]ere may be a final link to invisibility: these participants favour access over expertise, and who really cares about the work of an amateur?"[120]

In *A Hacker Manifesto* McKenzie Wark cites an account of hacking by Steven Levy which states that "[t]o qualify as a hack, the feat must be imbued with innovation, style and technical virtuosity."[121] While this definition appears incompatible with Deleuze and Guattari's account of the "scarcity of talent" that characterises minor practice, it is in the tension between the two statements that the possibility for a contemporary minor approach to form lies. An example that illustrates this tension can be found early on in William Gibson's *Pattern*

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[119] *Ibid.*
[120] Critical Art Ensemble, *Digital Resistance*, p.4.
[121] Steven Levy, *Hackers: Heroes of the Computer Revolution*, quoted in McKenzie Wark, *A Hacker Manifesto,* paragraph 071.

Recognition; a collector of primitive ZX81 Spectrum computers speculates on the relationship between the platform's limitations and the resultant preponderance of skilled programmers in the United Kingdom:

> The ZX81, marketed in the united state as the Timex 1000, cost less than the equivalent of a hundred dollars, but required the user to key in programs, tapping away on that little motel keyboard-sticker. This had resulted both in the short market-life of the product and, in Voytek's opinion, in the relative preponderance of skilled programmers in the United Kingdom. They had their heads turned by these little boxes, he believes, and by the need to program them. "Like hackers in Bulgaria," he adds, obscurely.[122]

If talent is the commercial or social application of technical virtuosity, hacking is the application of virtuosity for its own sake, for the love of finding out how things work and making them do other things. This is clarified in relation to the figure of the hacker by Robert Graham, who traces the etymology of the word to the 14th century as referring to one who is "inexperienced or unskilled at a particular activity" such as golf before going on to specify the distinction between the hacker's procedure and talent.[123] The virtuosity of the hacker is a technical process whereas talent is defined economically:

> A hacker is motivated by a love of technology; a desire to learn, play and master the technology for its own sake, because it's fun. It's this playful desire, coupled with an intense curiosity, which leads the hacker on…[124]

If talent relates to the *human*, technical virtuosity relates to the *nonhuman*, the perceived technical advantage of the control society. The role of the nonhuman is best described by Bruno Latour in relation to the speed bump, an indifferent material presence that is nonetheless both human made and plays a major role in shaping human relations with a particular system.[125]

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[122] William Gibson, *Pattern Recognition*, p.33.
[123] "In the 1970s, the word 'hacker' was used by computer enthusiasts to refer to themselves. This reflected the way enthusiasts approach computers: they eschew formal education and play around with the computer until they can get it to work. (In much the same way, a golf hacker keeps hacking at the golf ball until they get it in the hole)." Robert Graham, 'Hacking Lexicon', http://www.linuxsecurity.com/resource_files/documentation/hacking-dict.html. Last accessed 20/08/08.
[124] Dr K, *Hackers' Tales* (London: Carlton Books, 2004), p.15.
[125] See Bruno Latour, *Pandora's Hope* (Cambridge, London: Harvard University Press, 1999), p.186.

The key feature of the nonhuman actant for Latour is the way in which the human manufacturer's intentions are entirely distinct from those of the human that encounters the object, mediated by the object itself. "The drivers goal", for Latour, is "translated, by means of the speed bump, from 'slow down so as not to endanger [pedestrians] into 'slow down and protect your car's suspension.'"[126]

> Not only has one meaning…been displaced into another, but an action (the enforcement of the speed law) has been translated into another kind of expression. The engineers' program is delegated in concrete…[127]

This formulation is central to the mode of control that Deleuze describes, and any possible manipulation is a question of technical virtuosity over talent. One cannot have any kind of innate talent for comprehending the form and meaning of speed bumps (or labyrinths), but a command of the technical may allow such an ability. In light of this distinction the figure of the hacker, who works technically and with virtuosity but outside of the specific object-oriented processes of the control society, is central in determining an artistic and theoretical practice that runs counter to control.

If, as Kittler states, code is always executive, and as such negates the possibility of deconstruction as minor practice, then hypertrophic counter-tactics that demonstrate both a "scarcity of talent" and "technical virtuosity" might relate to decompilation, the extraction of code at a high level of abstraction from code at a low level of abstraction. When code is written it is generally in a high level language such as C, which wraps machine commands in syntax, keywords and tags that are interpretable and manipulable by a human agent (the programmer); this code is then fed into a into a compiler programme which first debugs the code, removing any errors or ambiguities that impair executability, before converting the code into binary 1's and 0's so that the CPU of a computer can interpret it at runtime.

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[126] *Ibid.*
[127] *Ibid.*, p.187. Ellipses mine.

Code, before it interacts with a computer's CPU, goes through a number of steps that ultimately equate language with a series of 1's and 0's, and these 1's and 0's with alternations of 5 and 0.7 volts. This process is carried out by a complier program, and is central to the way in which code functions as a language that is both executive and unreadable by a human agent. As Wendy Chun observes, "[o]ne cannot easily read compiled programmes."[128] Decompliation is the inverse of this process, whereby binary code is abstracted into a higher level language that *can* be both interpreted and manipulated by a human; W.L Caudle describes the process as follows:

> The inverse of compiling, or decompiling, is part of the idealized software cycle: canonicalization, compilation, optimization, and decompilation. It is a natural process which is applied each time a program is examined with the objective of abstracting its global properties. Decompilation deals with the processes of raising the language level from that in which a program is written to a level which allows translation to a different language, and possible transport to a different architecture, where the process is reversed by compiling. Ideally, decompilation results in the complete decoupling of data and algorithms, i.e., data declarations and procedures.[129]

If there is to be an equivalent practice to decompilation in minor cultural practice, it lies in the extraction of the code and the flexible, "translatable" algorithm from narrative works. One possible extension of this process is the reinsertion of noise as error, or *re*bugging. This is a technical process, in that it relates to the formal modes of composition that are characteristic of the control-era major, and therefore requires a grasp of the programming terms and functions that make up the definitive technologies of control. This is necessary both at the literal and allegorical levels since, as Lovink and Schneider have noted, the technical function of digital machines and their networks is today definitive of cultural politics. This is true at three interconnected levels – the socio-cultural (gamespace), the political (the control

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[128] Wendy Hui Kyong Chun, *Control and Freedom,* p.18.
[129] W.L Caudle, 'On the Inverse of Compiling', http://strategoxt.org/Transform/OnInverseOfCompiling. Last Accessed 25/04/08. Also see 'History of Decompilation', http://www.itee.uq.edu.au/~csmweb/decompilation/history.html, for an overview of the technical developments of the process.

society) and the global (Info-Empire) – and is summed up by Kittler's observation that, as a contemporary cultural theorist it is essential to:

> …learn not only to create paragraphs and footnotes, but also what a regression is and how to solve problems. I see this as being positive for cultural studies. I can't imagine that students today would learn only to read and write using the twenty-six letters of the alphabet…They should also know at least two software languages. Then they'll be able to say something about what culture is at the moment…Cultural studies refers to and examines the most important sign systems.[130]

The idea of hacking that suggests both technical virtuosity and scarcity of talent relates to the early usage of the term supported by Graham, based in the experimental manipulation of technology for the process rather than the end result. It has both a literal and an allegorical usage in the construction of the contemporary minor, since coding and patterning define control at both of these levels.

The hacker as minor practitioner introduces noise to signal as a conditional aspect of his work – the technical promotion of irrelevant or unclassifiable information for its own sake. The artist Cory Arcangel has connected these two dimensions of hacking, noise as both abstraction and unclassifiable or uncodable data, in an interview with Monica Ponzini:

> You take some code, you do something clever with the code, you cobble together things that weren't meant to go together or you do something clever with the architecture or the way the computer operates, that's what hacking means to me. I recently have seen Richard Stallman, the guy who started the GNU movement, giving a lecture, I think he described hacking something like John Cage's silence.[131]

In this understanding of hacking the contemporary minor characteristics of noise as unclassifiable, irrelevant or nonexistent information, the politicisation of this noise being attached to signal and the essential combination of technical virtuosity and scarcity of talent required to exercise this process come together, both with each other and with Deleuze and Guattari's initial characterisation of the minor in *Kafka*. The

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[130] Mathew Griffin and Susanne Herrmann, 'Technologies of Writing: Interview with Friedrich A. Kittler, *New Literary History* 27.4 (Autumn 1996), p.739.
[131] Monica Ponzini. 'Cory Arcangel: Re-Constructing Code Art', http://www.digicult.it/digimag/article.asp?id=748. Last accessed 20/04/09.

silence of John Cage is held up in *Kafka* as an example of the "pure, sonorous material" of music that defines the minor as opposed to the "systematised" "composed" or "semiotically shaped" music that comprises the major.[132] This silence is a highly productive way of thinking about noise, in its digital sense of nonexistent information, as counter-practice in the control era. This type of silence is music that cannot be defined sufficiently to be stored as a score, and the placement of this music as an analogue for the technical procedures of the hacker is highly productive in grasping the prospective tactics of a contemporary minor practice. Following from this point, after a brief note on the role of theory in control-era minor practice, Part Two of the thesis examines the emergence of a counter-practice through silence as noise or nonexistence in the writing of Samuel Beckett.

[132] See Chapter 1 note 9 of this thesis.

Note on Hacking Theory

In his *A Hacker Manifesto* of 2004 Wark takes as his focus the emergence of an era that is consonant with the control society at the level of information as commodity. For Wark the term hacker within this framework of ubiquitous informatics denotes any individual who is engaged with the production of information – scientists, researchers, artists, programmers and theorists amongst many others. The crucial dynamic played out in Wark's text is between this class of hackers and a 'vectoralist' class who both own and draw profit from the information they produce through copyright, patents and intellectual property rights. Wark's central observation – that information is radically distinct from land, for example, and as such cannot be subject to the same procedures of ownership – leads to a discussion, made in the endnotes to the book, about the status of theoretical or academic writing in relation to the control era.[133]

The writers Wark addresses most often in this endnote discussion – crucially, given their centrality to the concepts of major and minor and the control society – are Deleuze and Guattari. Warks's initial focus is on subject matter, addressing the way in which the examples of cultural object supplied throughout Deleuze's writing, "limited to the educational culture of his place and time", allow the work to be abstracted, classified and specifically marketed within a marketplace of critical theory. As a result of its "aristocratic" content Deleuze's work lends itself, for Wark, to "purely formal elaboration of the kind desired by the Anglo-American educational markets."[134] Wark develops his idea of the classification of theory in a later note, observing that Deleuze and Guattari can be "too easily captured by the academic and

[133] As Wark states, "The fields of research are entirely different from agricultural fields. While exclusivity of property rights may be necessary with land, it makes no sense whatsoever in science, art, philosophy, cinema or music." *A Hacker Manifesto*, paragraph 080.
[134] *Ibid.*, note to paragraph 007.

cultural marketplace, as the designer goods of the over-educated" and "too easily become the intellectual's Dolce and Gabbana", before concluding that this is a problem related specifically to a technical understanding (or lack thereof) of vectoralism as a cultural process in the control society.[135] For Wark "the missing link [in Deleuze and Guattari's writing] is an analysis of the way art, science and philosophy are debased into mere serviceable tools for vectoral power."[136]

In *A Hacker Manifesto* Wark uses the concept of informatic abstraction to unify his analysis of the ways art, science and philosophy are debased into "serviceable tools" and to begin formulating a practical response. Steven Shaviro, in his review of Wark's book, notes that a significant part of its success is methodological, coming "from the way that it 'abstracts' and coordinates such a wide range of sources."[137] *A Hacker Manifesto* not only diagnoses and explores the conditions of control-era cultural production, it moves towards a prospective theoretical counter-practice at the formal level. Wark suggests that the only possible response to the abstractions of a control-era cultural economy is to push this abstraction to a point where the resultant form can no longer be effectively coded and classified. As Wark states:

> [t]o abstract is to construct a plane upon which otherwise different and unrelated matters may be brought into many possible relations. To abstract is to express the virtuality of nature, to make known some instance of its possibilities, to actualize a relation out of infinite relationality, to manifest the manifold.[138]

As well as a contemporary minor practice in artworks, a corresponding theoretical mode is needed if theory itself is to resist major processes of coding and patterning. Wark continues the creation of this mode in *Gamer Theory*, where he extends the

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[135] *Ibid.*, note to paragraph 091.
[136] *Ibid.*, note to paragraph 130. Wark makes the same claim about Bateson in the note quoted above (note 96 of this section) that praises his early engagement with the technologies of information. Wark states that Bateson "grasped the link between information and nature on an abstract level, even as he shrank from examining the historical forces that forged just this link". *A Hacker Manifesto,* note to paragraph 035.
[137] Steven Shaviro, 'A Hacker Manifesto', http://www.shaviro.com/Blog/?p=361. Last accessed 20/04/09.
[138] Wark, *A Hacker Manifesto*, paragraph 008.

abstractions of the vectoralist class into the ubiquitous digitality of gamespace. Here, the process of writing cultural theory becomes part of the algorithmic narrative process, a series of steps to the top of a classified profession. "Even critical theory", writes Wark, "becomes another game."[139] In order to push beyond this process it is necessary to find ways in which to be both critical and hypertrophic in writing theory. The capacity of digital abstraction to place different or unrelated matters onto the same plane of analysis, in a way that both diagnoses and counters the underlying processes, is the key to this mode. Here the promotion of unmeasurable or nonexistent states becomes a practical-theoretical possibility, because in abstracting the underlying properties of cultural objects the major mode of the control society also allows these objects to be hacked together in previously unimaginable ways. This is why folktales, for example, are able to function as a productive diagnostic mode for the conditions of control-era minor narrative, and why the writing of Samuel Beckett and the recent commercial horror cinema are able to come together to advance the same mode later in this thesis. The tactical deployment of abstraction is a definitive methodological aspect of this thesis, moving towards a theoretical mode that can productively deploy the technical in apprehending the cultural – a mode that is essential in responding to the conditions of control.

[139] "Apply to top-ranked schools. Find a good coach. Pick a rising subfield. Prove your abilities. Get yourself published. Get some grants. Get a job. Get another job offer to establish your level in bargaining with your boss. Keep your nose clean and get tenure. You won! Now you can do what you secretly wanted to all those years ago…Only now you can't remember. You became a win-win Situationist. Your critical theory became hypocritical theory" Wark, *Gamer Theory*, paragraph 017.

Part Two

Samuel Beckett: Towards a Control-Era Minor Practice

Chapter 3: Beckett and Computation

As noted in Chapter 1 of the thesis, Deleuze has proposed that Kafka stands "at the point of transition between the two kinds of society", the disciplinary society and the control society.[1] This is why the concept of minor literature, initially derived by Deleuze and Guattari from Kafka's writing, is such a strong prospective model for contemporary counter-practice; it responds to a historical period during which the processes of the control society were still nascent, retaining aspects of institutions and confinement even as the interconnection of analogue media (the typewriter, the telegraph, the parlograph and the phonograph) moves towards the possibility of computation, the network and perpetual modulation.[2] In order to define some practical modes of contemporary minor practice an artist whose work proceeds from the end of Kafka's period through to the development and distribution to ubiquity of the computer is extremely useful; that artist is Samuel Beckett. The sole mention of Beckett in *Kafka* comes when Deleuze and Guattari argue that his work, in contrast to that of Kafka, "proceeds by dryness and sobriety, a willed poverty, pushing deterritorialization to such an extreme that nothing remains but intensities."[3] What Deleuze and Guattari do not acknowledge in this brief note is that Beckett's work, from *Watt* onwards, extends the late-disciplinary bureaucracy overseen by the analogue media of Kafka's writing through the period in which digital media emerge.

In *Discourse Networks 1800/1900* Kittler defines two periods that, as Alexander Galloway has noted, correspond in characteristics if not exactly in time to the sovereign and disciplinary societies outlined by Foucault. Kittler's second period begins somewhat late compared to Foucault's periodisation, and can be productively

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[1] Gilles Deleuze, *Negotiations*, p.179.
[2] See Chapter One, note 7.
[3] *Kafka*, p.19.

described as the period through which disciplinary societies develop into control societies. This second period in Kittler, which begins some forty years before the development of the first digital computers, and perhaps eighty years before the personal computer becomes a ubiquitous technology, primarily concerns the way in which the discretisation of text enabled by analogue media such as the typewriter marks a crucial step towards computation. Each of Kittler's periods, the "kingdom of sense" of 1800 and the "kingdom of pattern" of 1900, are prefaced by a definitive mathematical equation; the first, from Leonhard Euler in 1735, produces a sine wave – an analogue signal; the second, from Bernhard Bolzano in 1830, produces a binary, digital output.

$e^{ix} = \cos x + \sin x$ - *Leonhard Euler*

$y = (+a) + (-a) + (+a) + (-a) + \ldots$ - *Bolzano*

Friedrich Kittler: epigrams from the 1800 and 1900 sections of *Discourse Networks* [4]

In Kittler's approach to cultural history the mathematical or theoretical possibility of a technology always marks the start of the era it defines, hence the correspondence of each discourse network with an equation that precedes it by sixty-five or seventy years. This is why Deleuze's location of Kafka at the transition from disciplinary to control societies, despite the fact that the computer had not yet begun development at the time of his death, remains highly productive. In this light, the parallel development of Beckett's writing and computer technology is an extremely fruitful passage in the progression through Kittler's second period towards the control society of the late twentieth century and thereafter, moving as it does towards the conditions

[4] Friedrich Kittler, *Discourse Networks 1800/1900*, p.1 and p.175. As Kittler reveals in an interview with Matthew Griffin and Susanne Herrmann, "both equations appeared some seventy years prior to the discourse networks which they describe. Euler's formula is from 1735, and Bolzano's nonconvergent sum is from 1830. I wanted to place both systems in the shadow of their mathematical do-ability." Matthew Griffin and Susanne Herrmann, 'Technologies of Writing', p.735.

of control and minority through the inclusion of noise around code, algorithms and visuals.

In Beckett's work it is possible to see three interrelated movements that accompany the development of computation from its technical and theoretical beginnings to its late twentieth century ubiquity. Each of these three movements indirectly corresponds to the progression through three languages in Beckett observed by Deleuze in his late essay 'The Exhausted'. Language I, where "enumeration replaces propositions and combinatorial elements replace syntactic relations", has its definitive example in *Watt*, meaning that it both historically and technically corresponds to the early developments in computation, the processes of abstraction and formalisation made possible by binary code.[5] Language II, a language that "no longer operates with combinable atoms but with bendable flows",[6] corresponds historically to the emergence of software or algorithmic info-narrative, develops from the novels into the theatre and finally "blares forth" from the radio pieces.[7] Language III, "no longer a language of names or voices, but a language of images", corresponds historically to the emergence of graphical computing and moves from *How It Is* in 1961 to a point in the early 1980s where it finds the "secret of its assemblage in television".[8]

Extending the tripartite periodisation suggested by Deleuze's reading of Beckett's oeuvre, the first period accompanies the early theoretical and technical developments of computation carried out by Turing and Shannon in the late 1930s and is concerned with the formalisation of experience as data and algorithmic processes. The second emerges from the late 1940s with the novels of the trilogy, and develops alongside the emergence of programming languages and the early developments in analogue-digital

[5] Gilles Deleuze, *Essays Critical and Clinical*, p.156.
[6] *Ibid.*
[7] *Ibid.*, p.159.
[8] *Ibid.*

conversion, introducing a narrative layer that sits above the nonetheless still-present algorithmic processes – a "bendable flow" in place of "combinable atoms". The final language emerges alongside the development of computer graphics in the late 1960s, develops throughout the late prose into the television pieces and adds a layer of visuals above the preceding languages; as Deleuze notes, "language III can bring together words and voices in images".[9] In each instance technical parallels with the three stages of control-era major form set out in Chapter 1 are present, and as such each language corresponds to the ongoing development of concepts that are central to a contemporary minor practice.

Beckett's *Watt* was first published in 1953, but writing began on it eleven years earlier.[10] In an examination of the text's "Cartesian sentences" in *The Mechanic Muse* Hugh Kenner makes the observation that, in the processes of the novel's central character, "we're close to the languages of digital computers, which weren't heard of till a decade after *Watt* was written."[11] Kenner's somewhat general statement ignores the significant publication of the mathematical and technical fundamentals of computation, Alan Turing's 'On Computable Numbers, with an Application to the *Entscheidungsproblem*' in 1936 and Claude Shannon's Master's thesis 'A Symbolic Analysis of Relay and Switching Circuits' in 1938, although he does acknowledge the

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[9] *Ibid.* Alain Badiou also defines a specific movement in Beckett following *How It Is* and concentrated on the image. He finds the preceding forms "progressively replaced" with what he deems "*the figural poem of the subjects postures".* Badiou notes this is a definite progression from the previous works, which are continuous with Kafka's writing, supporting the periodisation that places Kafka at the transition between disciplinary and control society and Beckett alongside the ongoing development of control. Alain Badiou, *On Beckett*, ed. Alberto Toscano and Nina Powers, (Manchester: Clinamen, 2003), p.16.

[10] As Beckett himself remembers, "I think *Watt* was begun in Paris 1942, then continued evenings mostly in Roussillon and finished in 1945 in Dublin and Paris". Ruby Cohn, *A Beckett Canon* (Ann Arbor: University of Michigan Press, 2001), p.108.

[11] Hugh Kenner, *The Mechanic Muse* (New York, Oxford: Oxford University Press, 1987), pp.91-92. Despite these relative shortfalls in his periodisation, Kenner remains the only Beckett critic to address his mathematical interests in terms of computation. The main body of work to address Beckett and mathematics can be broadly divided into two types; texts that address specific mathematical concepts that Beckett is known to be aware of through his own reading and trace these concepts through his work, and texts that apply a general notion of, for example, chaos theory to his writing. Chris Ackerley's 'Samuel Beckett and Mathematics' is an example of the former, and John Leeland Kundert-Gibbs's *No-thing is Left to Tell: Zen/Chaos Theory in the Dramatic Art of Samuel Beckett* is an example of the latter.

algebra of George Boole which forms the basis of both works.[12] By the time *Watt* was completed, corresponding to the period Kittler examines at length in the second half of the 'Typewriter' section of *Gramophone, Film, Typewriter*, Turing and Shannon's work had intersected in the construction of the codebreaking machines that would win the Second World War, leading directly to the construction of the first computers in North America in the period immediately following this war. *Watt*, then, was actually written in the middle of the most crucial development in the movement from disciplinary to control societies, the foundation of computing through the proven possibility of abstracting a series of 'on' or 'off' states from a range of logic problems and, by extension, discretised text.

In *Watt* the coding and patterning processes that Watt engages in when at the house of Mr. Knott are basic, commensurate with the early stages of digital computer technology that the novel corresponds to. Watt processes events in the world algorithmically by branching through every possibility, a reduction of experienced events to binary algebra. Kenner notes this in *The Mechanic Muse* when he expresses a paragraph of text concerning the visits of Mrs. Gorman as first Pascal pseudocode then a series of conditional statements.[13] The paragraph in question proceeds in Beckett's text as follows:

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[12] For the purposes of clarity I am only referring here to significant developments directly relating to what we recognise today as the digital computer. In the media-archaeological sense it is possible to examine Joseph Marie Jacquard's loom of 1801 or Ada Lovelace's work on Charles Babbage's analytical engine in 1842, as well as many other mathematical and technical innovations, as early precursors to computation. Interestingly, as Martin Davis notes, the wheel invented by Gottfried Leibniz to mechanically add, subtract and multiply marks one of the earliest anticipations of computer technology; while there is a great deal of writing on the influence of Leibniz on Beckett's thought, none directly address the wheel, the 'calculus of reason' that prefigures Boolean algebra or the idea of a universal 'lingua characteristica' indifferently suitable for mathematics and communication. See Martin Davis 'Mathematical Logic and the Origin of Modern Computers', in Rolf Herken ed. *The Universal Turing machine: A Half-Century Survey* (Oxford: Oxford University Press, 1988), pp.150-151. For work on the relationship between Beckett and Leibniz see, for example, Garin Dowd, *Abstract Machines: Samuel Beckett and Philosophy after Deleuze and Guattari* (Amsterdam, New York: Rodopi, 2007), pp.129-162.

[13] Pascal is an imperative, procedural programming language developed by Niklaus Wirth in 1968, which would go on to form the basis of early Apple Macintosh assembly language. See Scott Moore, 'The ISO 7185 Standard Pascal Page, http://www.standardpascal.org. Last accessed 07/05/09.

> Mrs. Gorman called every Thursday, except when she was indisposed. Then she did not call, but stayed at home, in bed, or in a comfortable chair, before the fire if the weather was cold, and by the open window if the weather was warm, and if the weather was neither cold nor warm, by the closed window or before the empty heath.[14]

This passage is expressed by Kenner as the following algorithm:

> Mrs. Gorman
>
> came, yes/no
> didn't come, yes/no;
>
> if she didn't come then she stayed home:
>
> in bed, yes/no
> in chair, yes/no;
>
> if in chair, then
>
> by hearth, yes/no
> by window, yes/no;
>
> if by hearth, then fire burning, yes/no;
> if by window, then window open, yes/no.[15]

This is only one example of the processing of events and possibilities carried out by Watt in Beckett's novel, and the suitability of these processes for direct conversion into code. *Watt* contains a large number of these passages, both more and less extensive than the one concerning the movements of Mrs. Gorman.[16] Watt's formalisation of Mr. Knott's meal arrangements and the days on which leftovers should be given to a dog is amongst the most extensive of these algorithmic processes, taking up fourteen pages of the novel and including two passages (the

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[14] Samuel Beckett, *Watt* (London, Montreal, New York: Calder, 1998), p.138. Quoted in Kenner, *The Mechanic Muse*, p.93.

[15] Hugh Kenner, *The Mechanic Muse*, p.95. Kenner is an able computer programmer as well as literary critic, contributing a column to the computing magazine *Byte* in the early 1980s. See Harvey Blume, 'Hugh Kenner: The Grand Tour'. http://www.bookwire.com/bookwire/bbr/reviews/March2001/hugh_kenner_thegrandtour.htm. Last accessed 23/04/09.

[16] See Ackerley, 'Samuel Beckett and Mathematics' pp. 9-12 for a complete list of these "exhaustive logical paradigms", albeit a list that does not acknowledge the algorithmic procedures that they entail. For some additional, general accounts of mathematics in Beckett see Hugh Kulik, 'Mathematics as Metaphor: Samuel Beckett and the Esthetics of Incompleteness', in *Papers on Language and Literature* 29, and Howard J. Alane, 'The Roots of Beckett's Aesthetic: Mathematical Allusions in *Watt*', in *Papers on Language and Literature* 30.

composition, instigation and execution of Mr. Knott's arrangements, and the identity, selection and ownership of the dog) that are comparable to subroutines in programming, where a process that is relatively independent of the overall program occurs within it.[17]

As Turing and Shannon demonstrate in their influential papers written in the five years immediately preceding the composition of *Watt*, even highly complex problems can be solved through binary algebra provided they can be broken down into definable, discrete possibilities. In *Watt* it is the occasions that exceed complete formalisation that trouble the 'hero', and that serve to draw a distinction between perfectly-codable signal and the signal-plus-noise. Such occasions are suggested in the early stages of the novel when Watt overhears a song whose two verses each recount a recurring decimal number, 52.285714 and 51.142857. These numbers, corresponding to the simple calculation of the number of weeks in a leap and regular year respectively, are infinite and therefore pose a problem of formalisation to the computational power of humans, if not of actual computers.[18] For Watt, as Kenner observes, it is in the aspects of communication that relate to imprecisely-definable states that provide the experiential equivalent of these numbers later in the novel; how Mrs. Gorman *feels*, for example, when in her bed or chair, in front of window or hearth, and so on.[19] Here the central concern in *Watt* emerges as the tension between

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[17] Beckett, *Watt*, pp.84-98.

[18] These numbers in *Watt* have been erroneously classified by Rubin Rabinovitz and Barbara Reich Gluck as surds – irrational and hence noncomputable numbers – when both are in fact rational numbers, since they are finitely expressible as fractions. See Rabinovitz, *The Development of Samuel Beckett's Fiction* (Urbana: University of Illinois Press, 1984), p.153 and Gluck, *Beckett and Joyce* (London: Bucknell University Press, 1979), pp.91-92. For a more precise calculation of the weeks in a year, based on an average length over 400 years, see Francis S. Perryman 'Tables Adapted for Machine Computation', in the 1938 *Proceedings of the Causalty Actuarial Association*, p.126. Turing's 'On Computable Numbers' sets out the definitions of countable and hence computable numbers for a theoretical computing machine, although Kittler queries the consistency of Turing's definitions in 'There is No Software'; see Kittler, *Literature, Media, Information Systems*, p.189 n13.

[19] "Having ascertained these pivotal yesses and noes, the program, like the sentence, dies away a little feebly, since it tells us nothing about what happened when Mrs. Gorman came, or about her sensations when she did not come. Is she snug, in her chair, by the fire? Elated, in her chair, by the open window?" Kenner, *The Mechanic Muse*, pp.95-96.

the possibility of formalising analogue experienced reality into algorithms and the exclusion of noise that is definitive of this process.

The third section of *Watt* literalises a crucial facet of Shannon's 'Mathematical Theory'; that communication in the period of transition from disciplinary to control societies becomes statistical and meaning-indifferent, employing coding and patterning in place of interpretation. In this section, as its narrator Sam observes, Watt begins to reverse the order of the words in his sentences, then the letters in his words, then the sentences in the period, then both words in the sentence *and* the letters in the word, and so on. From the perspective of Shannon's theory these modes of communication are identical, since they are patterned in a way that enables their perfect reconstruction. The idea of intelligibility to a human reader or listener is not a consideration in 'A Mathematical Theory of Communication', only the optimisation of signal strength; to reiterate Shannon's statement quoted in the introduction of this thesis, "[the] semantic aspects of communication are irrelevant to the engineering problem…the system must be designed to operate for each possible selection, not just the one that will actually be chosen since this is unknown at the time of design."[20] From a technical rather than interpretive perspective, the patterns of speech in the third section is not a deterioration of Watt's mental state but the emergence of an output stage that corresponds to his method for processing input. If, in the second section of the novel, Watt strives to formalise all continuous experience as a sequence of discrete states – an act only theoretically possible for machines, and not at all for people – in the third section he extends this process into a mode of communication that is optimised for machines rather than people.[21]

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[20] Claude Shannon and Warren Weaver, *The Mathematical Theory of Communication*, p.3.

[21] See Friedrich Kittler, *Literature, Media, Information Systems*, p. 152, where Kittler states that "Only in Turing's paper *On Computable Numbers With An Application to the Entscheidungsproblem* does there exist a machine with unbounded resources in space and time, with infinite supply of raw paper and no constraints on computation speed. All physically feasible machines, in contrast, are limited by these parameters in their very code. The inability of Microsoft DOS to tell more than the first eight

Language I, historically corresponding *Watt* to the early developments of computation, develops into language II in the movement from *Watt* through the trilogy of novels *Molloy, Malone Dies* and *the Unnamable*. In the passage from *The Unnamable* to the radio plays that conclude the period of language II for Deleuze the significant developments in computation move from the first electronic computers to the development of programming languages, of which FORTRAN is arguably the first.[22] The development of programming languages instrumentalises the indifferent binary logic of the computer, since it allows for a mediation of human intent with machine-optimised formalisation. It is essentially a process of abstraction that is ordered from the perspective of the machine; in the same way that a home video, viewed as a stream of binary 1's and 0's, appears at a high level of abstraction to a human user, a programming language consisting of anything but electrical variations is at one or more levels of abstraction from the perspective of the computer. Programming languages are an abstraction of the computer's technical function in order to make it universal, useful and accessible – as Kittler and Chun have noted – and ultimately allow the abstraction of the social, cultural, political and economic world that defines Deleuze's control society and Wark's gamespace. In examining the texts definitive of language II in Beckett it is possible to set up a correspondence between this translation process, where the attempts at machinic formalisation seen in *Watt* give way to an instrumental mediation of this formalisation, and the parallel developments in computing history.

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letters of a file name such as WordPerfect gives just a trivial or obsolete illustration of a problem that has provoked not only the ever-growing incompatibilities between the different generations of eight-bit, sixteen-bit and thirty-two-bit microprocessors, but also a near impossibility of digitizing the body of real numbers formerly known as nature." It is worth noting that the Brosl Hasslacher paper Kittler cites in making this point is incorrectly identified as 'Algorithms in the World of Bounded Resources', when it is in fact 'Beyond the Turing machine' that the quotation comes from. The title to which Kittler mistakenly attributes the Hasslacher quote is from an essay by Yuri Gurevich that occurs directly before Hasslacher's in Rolf Herken ed. *The Universal Turing Machine: A Half-Century Survey*.

[22] See Cornelis Robat, 'Introduction to Software History' for a history of programming languages. http://www.thocp.net/software/software_reference/introduction_to_software_history.htm#FirstSteps. Last accessed 27/04/09.

An example supplied after that of *Watt* and its Pascal program that "doesn't give the computer anything to do" in Kenner's *The Mechanic Muse* is instructive in moving from language I and coding ("atoms") to language II, high-level programming and software ("bendable flows"). This example is taken from *Endgame*, written in the period between "as early as 1952" and 1956,[23] the same time that FORTRAN was being developed by IBM in the United States, and concerns the exact positioning of Hamm's chair by Clov.

HAMM Put me right in the center!
CLOV I'll go and get the tape.
HAMM Roughly! Roughly! [Clov *moves the chair slightly*] Bang in the centre!
CLOV There!
[*Pause.*]
HAMM I feel a little too far to the left. [Clov *moves the chair slightly*.] Now I feel a little too far to the right. [Clov *moves the chair slightly*.] I feel a little too far forward. [Clov *moves chair slightly.*] Now I feel a little too far back. [Clov *moves the chair slightly*.] Don't stay there [*i.e. behind the chair*.][24]

Here, at the same time that programming languages emerge in the labs of IBM, the machine-readable formalisations that produce no output in *Watt* are replaced with an imperative language that relates to a similar process, but that produces action in the world through communication that appears centred on humans. This neatly illustrates Kittler's point about software and hardware from 'There is no Software', cited above; it is not that the software fundamentally relates to any less of an algorithmic, nonhuman process than hardware, but rather that it abstracts the algorithmic away from machines and towards instrumentality for human users. The same holds true for programming languages; a program written in a high-level language such as C, the same program written in a low-level language such as x86

[23] S.E. Gontarski ed., *The Theatrical Notebooks of Samuel Beckett Volume II: Endgame* (London: Faber and Faber, 1992), p.xvi.
[24] Samuel Beckett, *Complete Dramatic Works* (London: Faber and Faber, 1990), p.105. Quoted in Kenner, *The Mechanic Muse*, pp.100-101.

assembly and the same program again written in binary code fundamentally resolve to identical hardware operations. There is no technical difference between them for the machine, only for the user.[25]

As Kenner writes, in issuing orders in the manner of Hamm one comes "even closer [than Watt] to the spirit of programming languages, FORTRAN and Pascal and their many siblings, since they are unique in having but one mood, the imperative".[26] In the passage of *Endgame* reproduced above, instructions are given for the procedural movement of an object, in a way that precludes any of the direct communication with data and algorithms that might be thought of as madness. Beyond Watt's institutionalisation for prefiguring Shannon's mathematical theory of communication, a prospective ideological connection between interest in hardware-level programming and insanity is critiqued by Kittler in 'Protected Mode', where he cites a trade publication's claim that "even under the best circumstances, one would quickly go crazy from programming in machine language".[27] As Kittler continues, "at the risk of having gone crazy long ago, the only thing one can deduce from all this is that software has obviously gained in user-friendliness as it more closely approaches the cryptological ideal of the one-way [i.e. irreversible] function."[28] In other words, the further we go towards high-level programming and software applications, the further we move away from a tripartite proximity; from the technical function of the machine, to the associated mixture of scarcity of talent with technical virtuosity that is crucial for a contemporary minor practice; and to the

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[25] Galloway has made the same point in responding to Chun and Kittler, stating that "it is foolish to think that writing an 'if/then' control structure in eight lines of assembly code is any more or less machinic than doing it in one line of C, just as the same quadratic equation may swell with any number of multipliers and still remain balanced. The relationship between the two is *technical*." Alexander R. Galloway, 'Language wants to be Overlooked', *The Journal of Visual Culture* vol. 5 no.3 (December 2006), p.319.

[26] Kenner. *The Mechanic Muse* p.100.

[27] Edlinger, B.; Eichholtz, H.G.; Feichtinger, H.; Jordan, J.P.; Kern, U. 'Chip-Tool-Praxis: Assembler-Programming Auf Dem PC' 1, cited in Friedrich Kittler, *Literature, Media, Information Systems*, p.157.

[28] Kittler, *Literature, Media, Information Systems*, p.158.

possibility of going mad, from the perspective of the billion dollar software industry that is definitive of control-era economics. In the same way, the further into language II in Beckett we look, the further we move towards the instrumentalisation of *Watt*'s algorithmic processes and the closer we come to the underlying conditions of the control-era major form.

Alongside the emergence of programming languages, there is a second major development in the information technologies of the control society that accompany the period of language II in Beckett: the emergence of methods for digitising analogue signals such as recorded sound and, ultimately, images. Deleuze does, after all, note that language II culminates not in writing but the 'blaring' sound of the radio pieces. The first of these pieces, *Embers*, was completed in early 1959, a year after Beckett's application of tape-recorded voice for the first time in *Krapp's Last Tape*. This places the 'recorded voice' pieces at a point where techniques for Pulse Code Modulation (PCM), under development since the late 1930s, were well established, and work on the Fast Fourier Transform (FFT) that would enable the digitisation and micro-level analysis of analogue signals for theoretically perfect noise reduction was close to applicability.[29] Work on PCM was in progress at Bell Laboratories since the discovery in 1943 of a patent held by Alec H. Reeves from 1938;[30] its technical development is simultaneous with the movement from language I to language II in Beckett. As collected in a 1948 paper by Shannon, B.M. Oliver and J.R. Pierce, a basic technical account of the PCM process is as follows; in order to move beyond the necessary transcription of messages into text before they can be discretised, a two-stage technique is applicable. The first stage is concerned with the

[29] The crucial paper in terms of the practical application of the FFT is J.W. Cooley and J.W. Tukey's 'An Algorithm for Machine Calculation of Complex Fourier Series', in *Mathematical Computation* 19 (1965). Also see Daniel W. Rockmore, 'The FFT – an Algorithm the Whole Family Can Use', http://www.cs.dartmouth.edu/~rockmore/cse-fft.pdf, last accessed 29/04/09.

[30] See M.D. Fagen ed., *A History of Engineering and Science in the Bell System* vol. 2 (New York: Bell Telephone Laboratories, 1975), p.316.

sampling of an analogue signal, giving a discrete value for the time variable (x axis) of the signal. The second stage allows the discretisation of the signal's amplitude (the y axis) through its reduction to thirty-two incremental values, each expressed as five on/off states.[31] It must be noted that after the techniques of PCM attained widespread use through the distribution of transistor technology in the 1950s, allowing for the prospective application of Turing and Shannon's theoretical work to all analogue signals, Beckett begins to work primarily with voices instead of text. This marks a major stage in the movement towards the crucial language in Beckett in terms of contemporary minor practice, language III. This final language, where all elements of text and voice, data and algorithm are placed behind images, is of particular historical interest because of the way it coincides with the emergence of ubiquitous computing. After the techniques for PCM make analogue to digital conversion possible, the prospect of the computer as a multimedia machine emerges. After Beckett's writing moves from the formalisation of data and algorithms to their execution of literal action and the subsumption of the analogue under the digital and finally to images, the historical movement of his work alongside the emergence of the computation that technically defines the control era is complete.

In Beckett the movement through the three languages identified by Deleuze is always imperfectly coded, communicating a high coefficient of noise along with its signal. This is why its proximity first to data and algorithms, then the instrumental form of these processes, and finally the addition of multimedia layers that are both produced by and hide them, are so important in the context of the emergent control era, allowing the progression through the work to set conditions for a minor practice that emerges from within major conditions. Despite the absolutely essential connections set out above relating to Beckett and computation, the contemporary

[31] B.M. Oliver, J.R Pierce and C.E. Shannon, 'The Philosophy of PCM', in the *Proceedings of the Institute of Royal Engineers* vol. 36 no. 11 (1948).

minor practice that we might extract from his work will relate not to the evolutionary stages of computation but to its current state, where code is hidden by software and software by images, each conditioning the user towards an algorithmic relationship with the world.

There have been a few attempts made in the last twenty-five years to connect the works characteristic of Beckett's languages I and II to the function of computation. These include Kenner's above-mentioned translations of Watt into Pascal, Richard N. Coe's attempt to find the act of linguistic translation and the function of code analogous in 'Beckett's English', Damian Gordon's attempts to teach fundamental computing through *Krapp's Last Tape*, and Elizabeth Drew and Mads Haar's creation of a computer program that generates new arrangements of *Lessness*.[32] The shortfall of this language-based approach, in terms of grasping the political significance of the abstract relationship between Beckett and computation, lies in a failure to comprehend a fundamental aspect of code in the control era: that it is meant to be read by computers, not people. From *Watt* onwards it is possible to see a progression in Beckett's writing that reflects the technical developments within the "kingdom of pattern", the discourse network of 1900. The major trend in this movement is towards the masking of data and algorithms under the modes of human-centric analogue media. It is not that the novels, drama or the radio plays that define language II eliminate the algorithms that are on the surface in *Watt*, but rather that they hide them behind layers of narrative and sound. The final language in Beckett's writing as read by Deleuze marks the culmination of this process, where images are added to the assemblage of data, algorithm and interface, and it in is this

[32] See Richard Coe, 'Beckett's English', in *Samuel Beckett: Humanistic Perspectives* ed. Morris Beja, S.E. Gontarski and Pierre Aster, (Columbus: Ohio State University Press, 1983), pp. 36-58, Damian Gordon, 'Using the work of Samuel Beckett to Teach Fundamental Computing Concepts', http://www.comp.dit.ie/dgordon/Publications/Author/2007INTED/eBeckett.ppt, last accessed 29/04/09, and Elizabeth Drew and Mads Haar, '*Lessness:* Randomness, Consciousness and Meaning', http://www.random.org/lessness/paper/, last accessed 29/04/09.

language that Beckett's writing comes closest to the form of a control-era major practice.

Language III, for Deleuze, begins with *How it Is* and culminates with the television plays. Throughout the period of language III the technical developments of graphical computing are many, marking the passage towards the control society. Beckett completed *How It Is* in 1961, the same year that Ivan Edward Sutherland begun work at MIT's Lincoln Labs on his Sketchpad system, the first Graphical User Interface.[33] In 1963, the year Sutherland submitted work on his system, Beckett wrote *Film,* followed by *Eh Joe*, the first of his television pieces. By the time of *Ghost Trio* (1975) and *...But the Clouds...* (1976) the Xerox Alto Personal Computer had been built, employing the modern GUI and the desktop metaphor for the first time. From this period to the early 1980s marks the emergence of the commercially available computer and the associated graphical software packages. *Quad* (1982) coincides exactly with the release year of the Intel 80286 microprocessor which motivates Kittler's critique of graphical, software-based computing in 'Protected Mode'. In line with this historical correspondence, it is *Quad* that provides the most useful manifestation of control and visuality, and that most keenly interests Deleuze in 'The Exhausted'.

At the very start of the GUI era, Sutherland's Sketchpad removes not only the need for the user to program in low-level or machine language, but the need to program at all. Presenting an interface based on drawing, pointing and clicking, the system combines analogue physical input with analogue visual output, hiding any trace of the underlying algorithm. Following this, if Beckett's language I coincides with the theoretical and technical possibility of computation, and language II with

[33] See Ivan Edward Sutherland, 'Sketchpad, A Man-Machine Graphical Communication System', electronic version available from http://www.cl.cam.ac.uk/techreports/UCAM-CL-TR-574.pdf. Last accessed 30/04/09.

the instrumentalisation of computing through the first high-level programming languages, the first software and the possibility of analogue-to-digital conversion, then language III coincides with the emergence of interfaces that do not appear algorithmic but that give access to underlying algorithms. This can be described as an executive visuality, the visual level of the control society. In other words, if the above-cited passage of *Watt* and its corresponding stage of computer history is concerned with the conversion of meaning into data, and the passage from *Endgame* and *its* corresponding stage of computer history is concerned with the conversion of meaning into action through the manipulation of abstracted data at a remove, then the period and the Beckett work after *How It Is* removes the trace of conversion and presents image and action as simultaneous and inseparable. As noted above, this final language finds its clearest connection with control and visuality in *Quad*.

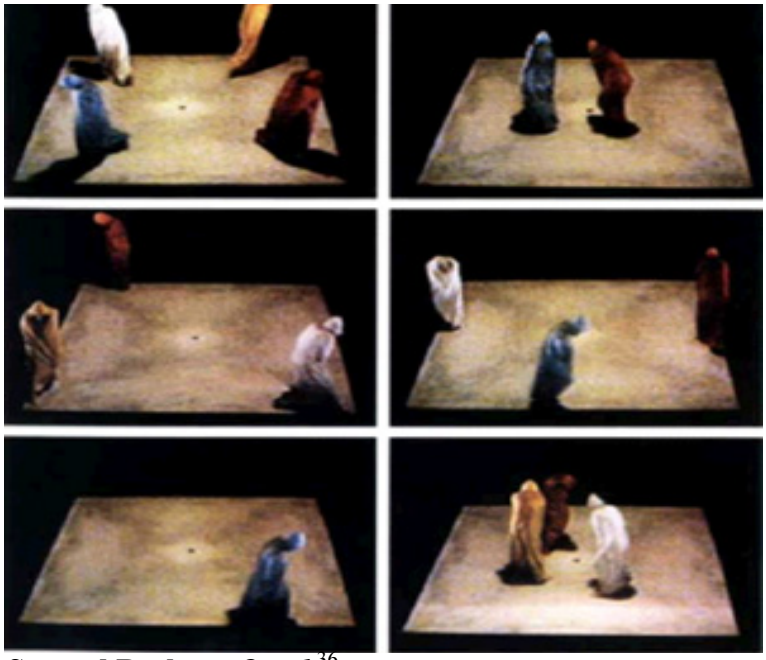
In *Quad* an exhaustive series of combinations are expressed from four bodies, each with specific light, percussion, passage of movement and footstep sound. It is a defined set of possibilities that is executed procedurally and expressed visually, and because of this it marks both the clearest expression of language III in Beckett and the strongest point of connection between Beckett and the technical conditions of the control era. The piece is filmed with a single static camera located slightly above the depicted space, and consists of four hooded figures executing a series of movements within a square "six paces" in length.[34] Each player must complete a predetermined course based on movement between the four corners and evasion of an invisible square set at the centre. The stage directions for this movement consist solely of the letters given to each corner – A, B, C and D, and appear as follows:

Course 1: AC, CB, BA, AD, DB, BC, CD, DA
Course 2: BA, AD, DB, BC, CD, DA, AC, CB
Course 3: CD, DA, AC, CB, BA, AD, DB, BC

[34] Beckett, *Complete Dramatic Works*, p.451.

Course 4: DB, BC, CD, DA, AC, CB, BA, AD[35]

Each course corresponds to one of four hooded figures (1 wearing white, 2 in yellow, 3 in blue, 4 in red). Through the execution of these series four times, with a player added at each repetition, every possibility of each course with each combination of players is worked through algorithmically. The piece is of interest for two main reasons in light of the control era that stands at the end of Kittler's discourse network of 1900. Firstly, because the piece as a whole presents a procedural configuration of space overlaid with a visual layer whose effect is to mask the presence of an underlying algorithm; and secondly, because the movements of the players corresponds to the control mode of perpetual modulation exemplified by the videogame, where restrictive movement is enforced not by a human agent but by the impossibility of deviating from a coded path. The experience of watching *Quad* is comparable to watching a videogame in demo mode, where the player-controlled characters follow coded paths without any user input.



Samuel Beckett, *Quad* [36]

[35] *Ibid.*
[36] From http://www.trax.it/olivieropdp/mostranotizie2.asp?num=99&ord=20. Last accessed 07/05/09.

Towards the end of *Gamer Theory* Wark modifies a statement from Mark Fisher, aka K-Punk, to align it with the terminology of gamespace:

> [w]hat do we look like from [game]space? What do we look like *to* [game]space? Surely we resemble a Beckettian assemblage of abstracted functions more than we do a holistic organism connected to a great chain of being. As games players, we are merely a set of directional impulses (up, down, left, right); as mobile phone users, we take instructions from recorded, far distant voices; as users of SMS or IM, we exchange a minimalized language often communicating little beyond the fact of communication itself (txts for nothing).[37]

Quad, exemplary of language III in Beckett, draws together the three crucial characteristics that develop through languages I and II and that parallel the three elements (code, narrative, visuality) of the control-era major set out in Chapter 1. Here, human possibilities abstracted into discrete data are cast into algorithms and instrumentalised, finally producing image that masks the underlying processes. Beckett's writing does not simply reproduce these stages but presents them always afflicted by noise. It does this by promoting experiences that are less than perfectly codable, narratives or algorithms that are less than perfectly executable and images that are less than perfect. That it produces noise not through excess but by absence, triviality and silence – each an example of the nonexistent action, nonexistent information and irrelevant or unmeasurable events suggested by Galloway and Thacker in relation to future avant-garde practice – is essential to its position at the emergent stage of a control-era minor practice. The next chapter of the thesis works through Deleuze and Guattari's three characteristics of minor practice as set out in Chapter 2 in terms of this connection between Beckett and silence, with the specific intent to argue that it is through examining these tactics in emergence that their contemporary forms will be most clearly grasped.

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[37] K-Punk, 'Cartesianism, Continuum, Catatonia: Beckett', http://k-punk.abstractdynamics.org/archives/007587.html. Last accessed 07/05/09. Quoted in McKenzie Wark, *Gamer Theory*, paragraph 223. 'Cyberspace' altered to 'gamespace' by Wark throughout.

Chapter 4: Beckett, Silence and Minor Practice

Silence is the central concept in the location of Beckett's writing at the nucleic stage of a contemporary minor practice. Without broaching the related subjects of nihilism and nothingness, silence is a concept repeatedly attached to Beckett in critical writing and features to various degrees in work by Maurice Blanchot, Georges Bataille, Alain Badiou and Ihab Hassan, amongst many others.[38] Equally, the idea of silence runs throughout the idea of minor practice set out in this thesis, from the presence of digital noise through overwritten information to the ideas of nonexistence proposed by Galloway and Thacker to Richard Stallman's notion of hacking as silence cited by Cory Arcangel. Silence, in the control era, is that which cannot be measured, and therefore cannot be recorded, transcoded, formalised or patterned, even by computers. It is notable that the 0 (or 'low' signal) that makes up one half of all binary states in computation does not correspond to 0 volts but 0.7 volts, because no physical logic gate can guarantee a true 0 volt signal. The 1 (or 'high' signal) corresponds to 2-5 volts. Any signal between 0.8 and 2 volts prevents the gate from registering either the 0 or that 1 that are crucial to the technical function of computation, and hence the control society. This technical allegory of this positive yet unmeasurable or 'silent' state is crucial to control-era minor practice. It produces noise at the fundamental level of the digital machine in the same way that missing information in the compressed sound, image or video file introduces noise to its user-readable output.

In defining language III in Beckett, Deleuze demonstrates not only an abstraction of the image from text but the way in which pockets of 'silence', or absent

[38] See Maurice Blanchot, '"Where now, Who now?"' in *The Book to Come*, trans. Charlotte Mandell, (Stanford: Stanford University press, 2003), Georges Bataille, 'Molloy's Silence', in *On Beckett: Essays and Criticism* ed. S.E. Gontarski, (New York: Grove Press, 1986), Alain Badiou, *On Beckett* and Ihab Hassan, *The Literature of Silence* (New York: Alfred A. Knopf, 1967) and *The Dismemberment of Orpheus* (Madison: University of Wisconsin Press, 1982). For a broad survey of Beckett criticism in relation to claims of nihilism and anti-nihilism see the introduction to Shane Weller, *A Taste for the Negative* (London: Legenda, 2005), pp. 1-28.

information, occur within this image. Language III relates languages no longer to "enumerable or combinable objects", nor to "transmitting voices", but to images with "immanent limits that are ceaselessly displaced – hiatuses, holes or tears that we would never notice."[39] Beckett's work, for Deleuze, is concerned with two meanings of exhaustion, one related to absolute formalisation and the other to silence as noise, nonexistence and the impossibility of formalisation:

> The greatest exactitude and the most extreme dissolution; the indefinite exchange of mathematical formulations and the pursuit of the formless or the unformulated. These are the two meanings of exhaustion.[40]

In combining these two exhaustions Beckett moves towards the terms of a contemporary minor practice while a contemporary major develops within the emergent control era that is concerned only with the exhaustion of possibility through data types and algorithms. This chapter will return to the three characteristics of contemporary minor practice set out in Chapter 2 through the framework of this silence, examining the ways in which Beckett's writing adds noise to signal, politicises errant or absent information and in doing so demonstrates a scarcity of talent alongside technical virtuosity. Following the correspondences set out above, each of these characteristics function at one or more of the interrelated levels of code, narrative or software and visuality that are essential to the control era major.

Silence and Noise, Politics and Talent

Beckett's trilogy of novels *Molloy, Malone Dies* and *The Unnamable* stand at the point of transition from language I and II, and from theory and hardware to practice and software in the history of computing. Through these novels, taken as a continuous single work rather than three distinct parts, the presence of an interface layer of identifiable characters, narratives and locations is discernible above an abstract

[39] Gilles Deleuze, *Essays Critical and Clinical*, p.158.
[40] *Ibid*., p.154.

linguistic base. As the trilogy progresses this interface is gradually run through with noise, becoming increasingly buggy and unstable until finally, in *The Unnamable*, only the base remains. As Maurice Blanchot observes, *Molloy* is definably cast in a history of narrative, taking "the reassuring form of a story".[41] In the first half of *Molloy* the protagonist, after whom the novel is named, moves through a series of locations in an attempt to reach his mother's house. In the second half, a detective named Moran is charged, by a mysterious agency redolent of the disciplinary forces at work in Kafka's novels, with finding Molloy. Both constitute a definable motivation for narrative progression, even if the process is already becoming affected by the digital noise of irrelevant or nonexistent information. In *Malone Dies* this story layer begins to fail at the formal level as the narrator repeatedly begins to tell stories, only to see them constantly die out. Nonetheless, there remains an attempt to provide at least some of the requirements of a novel: imperative narration, depicted locations, temporally stable sequences of events, characters and descriptions of place and space are established several times, but each time lacks the signal strength to assert any kind of pattern over the novel.

As Gregory Bateson argues in his account of communication theory, "patterning of message material always helps the receiver to differentiate between signal and noise."[42] *Molloy* and *Malone Dies* present the surface patterning essential to the novel in its historical form, but this patterning is noisy with multiple divergences and irrelevance. Through the two novels the surface patterns diminish, and noise increases. At the end of *Malone Dies* the ratio of noise to signal, or bug to functional interface, collapses along with the narrator Malone, giving way to the start of *The Unnamable* and the prospect of a form that removes the interface layers of narrative, character, description and reference, leaving the underlying code in plain sight.

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[41] Maurice Blanchot, *The Book to Come*, p.211.
[42] Gregory Bateson, *Steps to an Ecology of Mind*, p.416.

> Lemuel is in charge, he raises his hatchet on which his blood will never dry, but not to hit anyone, he will not hit anyone, he will not hit anyone, he will not hit anyone any more, he will not touch anyone any more either with it or with it or with it or with or
> or with it or with his hammer or with his stick or with his fist or in thought in dream I mean he never will
> or with his pencil or with his stick or
> or light light I mean
> never there he will never
> never anything
> there
> any more[43]
>
> Where now? Who now? When now? Unquestioning. I, say I.[44]

At the end of *Malone Dies* the transmission of information is overcome with noise, causing a variety of errors from missing or repeated words to the failure of syntax (the patterning of words to ensure intelligibility). In contrast to Watt's permutations of backward communication, each of which can be perfectly decoded into plain English once the relevant encryption key is determined, by the close of *Malone Dies* even a computer would be unable to extract perfect sense from the discourse. For Blanchot *The Unnamable* represents a novel with its user interface removed, deprived, for example, of "characters under the reassuring protection of their personal name" and composed instead of "phantoms without substance, empty images revolving mechanically around an empty center that the nameless 'I' occupies."[45] In *The Unnamable*, the 'protected mode' of the novel is switched off, some thirty years before the same mode would be built into every commercial microprocessor to prevent access to their machine operations, to Kittler's dismay. The result is a text that presents a close approximation of the literary equivalent of source code; the language behind the language, or the stream of pure data and algorithms that underpin the user output. That this stream of data is run through with the same noisy, buggy

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[43] Samuel Beckett, *Molloy, Malone Dies, The Unnamable* (London, Montreal, New York: Calder Publications, 1997), p.289.
[44] *Ibid.*, p.293.
[45] Maurice Blanchot, *The Book to Come*, p.212.

processes that caused its interface layer to fail demonstrates the prospective effectiveness of a minor mode that engages with the technical aspects of control era major practice.

After the trilogy Beckett's writing is characterised by the combination of patterned signal and digital noise, or the codable and the silent. It is an example of a hypertrophic art, pushing formal, technical modes further than they are meant to go through means that are not violent, demonstrative or resistant but calm, implacable and receptive. Perhaps it is for this reason that it poses a distinct problem for Jacques Derrida, as expressed in an interview with Derek Attridge published in *Acts of Literature* in 1992:

> J.D - [Beckett] is an author to whom I feel very close, but also too close. Precisely because of this proximity it is too hard for me, too easy and too hard, I have perhaps avoided him a bit because of this identification…[46]

The reaction given by Derrida in the Attridge interview is more than an expression of incompatibility, although this would be consistent with the above-cited claims Kittler, Hardt and Negri make about deconstruction in the era of computation. Derrida's statement is in fact an affirmation of the two intertwined threads in Beckett, that of the technical formalisations that correspond to the major and to control and that of the instances that defy formalisation. Derrida's later statement that Beckett is not already too "deconstructive" or "self- deconstructive" as Attridge suggests, but rather that he places possibilities in the "greatest possible proximity and competition", being at once "nihilist and not nihilist" develops the crucial relation between Beckett and minority.[47]

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[46] Jacques Derrida, *Acts of Literature*, ed. Derek Attridge, (New York: Routledge, 1992), p.60.
[47] *Ibid*., p.62. Steven Connor hails Derrida as a writer "whose works of commentary never simply comment on the works they discuss, thereby fixing the distance between text and commentary, and freezing the play of language within the original texts, but always attempting to prolong the energies of association at work in these original texts." The result of this mode of reading, and especially the idea of prolonging over extending, is that no matter how far the "energies of association" are stretched, even the most adventurous reading of a text is denied anything of the connectivity between the textual medium and the world that surrounds it. Derrida's procedure is always demonstrative, an investigation

For Derrida, Beckett is both nihilist and not nihilist. For Deleuze, he performs a double movement towards exhaustion, through both the production of exhaustive formal series and the location of "holes" and "tears" that deny final, exhaustive formalisation. It is this in-between, undecidable or nonexistent position that is crucial to the role Beckett's writing can play within the emergent contemporary minor. The combination of signal and noise, in the digital sense of that which can be coded and rendered algorithmic and that which denies this process through technical undecidability or irrelevance, is the point at which a prospective counter-control practice emerges in his writing. Crucially, this is always an affirmative practice when viewed from the perspective of the contemporary situation. It projects outwards through an engagement with both the terms of control and the exploits that deny it. It is through this double function that the second characteristic of the minor, where everything becomes political, appears in Beckett despite the well-documented difficulties his work poses to political readings in the preceding era.[48]

As noted at the start of Chapter 1, the second characteristic of the minor practice that Deleuze and Guattari extract from Kafka, occurring at the transition from disciplinary to control eras, is that "everything in them is political." In Chapter 2 I demonstrate the way in which errant information in the Grimm's folktales offers a practical manifestation of this process in the age of ubiquitous informatics, where the presence of an irrelevant "other story vibrating within" causes an apparently apolitical narrative form to become highly political due to the dialectic it constructs with the technical processes of coding, patterning and formalisation that define the control era.

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into the noise that is excluded by processes of formalisation. There is no real interest in the necessary means by which formalisation can be leveraged to reinstate noise. Every literary, critical or philosophical work becomes an ultimately closed system, and the possibility for an affirmative use of abstraction, where the political prospects of theory that takes flight, beginning from text but ending up outside of it through aparallel connections, is denied. Steven Connor. *Postmodernist Culture* (Oxford: Blackwell, 1989), p.239.

[48] See, for example, Peter Boxall, 'Samuel Beckett: Towards a Political Reading', *Irish Studies Review* vol. 10, No. 2 (2002), for a discussion of the difficulties relating to Beckett and politics.

The extension of this process into a form that corresponds historically to the emergence of the control society can now be seen in Beckett's writing. This represents a way of thinking through the central problem attached to Beckett and to politics pointed out by Peter Boxall, who responds to Blanchot and Deleuze as follows:

> [t]he occasional essays and reflections on Beckett by Blanchot and Deleuze…are geared towards exploring the means by which Beckett opens up ruptures and discontinuities in the text through which a naked and extracultural voice or image can be heard or seen…it has proved exceptionally difficult to read such detachment as having any sort of critical capacity. The negativity of Beckett's vision is so extreme, and so unlimited, that it becomes impossible to read it as being dialectically engaged with any positive term.[49]

It is the impossibility of casting Beckett's silence as any kind of positive term that precludes the theoretical connection of his work to the political in the works derived from those Boxall puts forward. Considered in terms of the disciplinary era this contradiction may hold true. Placing Beckett's work alongside the emergence of computation and control, however, necessitates a reconsideration of the problem; in this techno-historical context silence, rupture and discontinuity emerge as manifestations of nonexistence, affirmative locations of noise in contrast to formal, codable communication.[50] When Galloway and Thacker suggest that nonexistence is the key to future counter-practice they are quick to stress the difference between

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[49] Peter Boxall, 'Samuel Beckett: Towards a Political Reading', p.163. For an attempt to directly relate Beckett to the socio-political reality of Ireland see Vivian Mercier, *Beckett/Beckett* (Oxford University Press, 1977). For an attempt to square this approach with the apparent lack of cultural specificity in Beckett see Eoin O'Brien, *The Beckett Country* (Dublin: Black Cat Press, 1986). For an attempt to square these more-or-less materialist approaches with the Blanchot-type theoretical approach see Leslie Hill, '"Up the Republic!": Beckett, Writing, Politics', *Modern Language Notes* vol. 112 no. 5 (December 1997). For a reading of form as a connecting point to politics in Beckett see David Weisberg, *Chronicles of Disorder* (Albany: State University of New York Press, 2000).

[50] Steven Connor, in *Theory and Cultural Value*, and Russell Smith, in 'Beckett, Negativity and Cultural Value', have drawn attention to ongoing critical and cultural attempts to reconfigure Beckett's negativity as positivity. As Connor states, and Smith cites, "the table of conversion instanced here governs much if not most criticism of Beckett, which has learnt to give every extremity of dilapidation in his work a positive reflex of value."In failing to address the historical and cultural changes that form a backdrop to the progression of Beckett's writing, however, both analyses remain confined to the terms of the disciplinary and fail to engage with the political, cultural and thus theoretical implications of emerging control. Steven Connor, *Theory and Cultural Value* (Oxford*:* Blackwell, 1992), p.82. Russell Smith, 'Beckett, Negativity and Cultural Value', http://www.samuel-beckett.net/smith.html. Last accessed 06/05/09.

nonexistence and "absence, lack, invisibility and nonbeing."[51] Nonexistence is characterised by a struggle, not of "confrontation" but the "full assertion of the abandonment of representation."[52] This is exactly the struggle played out in Beckett. Nonexistence, or silence in Beckett, relates to the positive expression of a state that cannot be recorded as data or expressed as an algorithm. The prospective tactics suggested by Galloway and Thacker to achieve nonexistence include "nonexistent action (nondoing)", "unmeasurable or not-yet-measurable human traits" and "the promotion of measurable data of negligible importance."[53] Each of these tactics is definitive of the silence that Beckett's writing puts forward alongside patterns and codes.

For Blanchot, Beckett's attempt to write towards silence in *The Unnamable* is configured as a negative movement, exemplifying a confrontational mode that "always destroys the work in question."[54] This is an example of the incompatibility between silence and affirmation that directly corresponds to the late critical paradigms of the disciplinary period. Under control conditions, however, the technical function of an object replaces its content as the primary site of political engagement; viewed in this way Beckett's silence becomes a model of positive practice, actively denying the exhaustive parsing of algorithmic processes. As Galloway and Thacker state, "nonexistence is nonexistence not because it is an absence, or because it is not visible, but precisely because it is full."[55] Beckett does not write nothing, but demonstrably writes towards that which cannot be defined as any specific something by any available algorithm. This is why his silence, like

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[51] Alexander R. Galloway and Eugene Thacker, *The Exploit*, p.136.
[52] *Ibid.*
[53] *Ibid.*
[54] Maurice Blanchot. *The Siren's Song: Selected Essays*, ed. Gabriel Josopovici, (Brighton: Harvester Press, 1982), p.195. In Charlotte Mandel's earlier translation of '"Where Now? Who Now?"', published in 1959, this sentence is significantly different, reading "…which always ruins the work". Blanchot, *The Book to Come* p.213.
[55] Galloway and Thacker, *The Exploit*, p.136.

nonexistence, does not relate to nihilism, or the turning away from political engagement, but instead to affirmation, "the purest form of love."[56]

In digital technology, silence (or nonexistence) results in noise. If, as Bateson suggests in *Steps to an Ecology of Mind*, noise is the "only possible source of new patterns" in the era of mathematical communication, than it must be considered a positive term.[57] And if this digital sense of noise is manifested by Beckett's silence then his writing must be seen as taking on a political dimension in the control era, even if it lacks one in relation to the preceding period. That this silence requires creation, as it is not absence but "fullness", requires the application of both a scarcity of talent and a technical virtuosity. This is where silence connects Beckett to the final characteristic of contemporary minor practice. As examined above, Beckett's work is engaged in a double progression: towards the application of permutational, algorithmic processes related to event, narrative and image, and towards the creation of points of undecidability, irrelevance and nonexistence that deny them. There is nothing of the heroic rebellion in Beckett's creation of noise within pattern, what Steven Connor describes as "the heroics of absolute negation."[58] Such actions immediately cast the practitioner into a definable position, allowing for effective formalisation. As Galloway and Thacker state in defining possible practices of nonexistence, a "driven exodus" and a "pointless desertion" are "equally virtuous."[59]

Beckett's 1969 prose piece *Lessness* is composed of two permutations of sixty sentences, with each set of ten sentences corresponding to one of six images. Ruby Cohn, describing Beckett's compositional strategy for the piece as recounted to her by the artist, states that he first drew the sixty sentences randomly from a container to derive their order, and subsequently drew numbered pieces of paper to derive the

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[56] *Ibid.*, p.137.
[57] Gregory Bateson, *Steps to an Ecology of Mind*, p.415.
[58] Steven Connor, *Theory and Cultural Value*, p.89.
[59] Galloway and Thacker, *The Exploit*, p.137.

length of each paragraph.[60] Despite this, the final piece appears both structured and meaningful as a condition of the careful composition of its initial data set, the individual sentences. The technical virtuosity demonstrated by the piece is in the planning, the careful determination of both the content of the individual objects and the numbers of words, sentences and paragraphs. This is illustrated by the sum total of the words in the piece: 769, a prime number that suggests an overarching concern with irreducibility in a work that is explicitly permutational.[61] The connection between the finite data set, the limitations placed on the final outcome by the close construction of this data and the process used to perm the final piece is the point at which scarcity of talent and technical virtuosity are configured in *Lessness*. Beckett demonstrates the former in his procedure of randomly drawing sentences, and the latter in his close attention to microstructure within the original raw material (the sentences) that allow the piece to both appear to form a meaningful narrative and to produce significant output data such as the total number of words.

Mathematically exhaustive series are present in Beckett from his earliest texts; as Susan Brienza and Enoch Brater note, the compositional process of *Lessness* "resembles Molloy's efforts at calculating his number of farts...or the distribution of 16 sucking stones in the four miserable pockets of his greatcoat", to say nothing of

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[60] As Cohn states, "He wrote his sixty different sentences in six families, each family arising from an image. Beckett wrote each of these sixty sentences on a separate piece of paper, mixed them all in a container, and then drew them out in random order twice. This became the order of the hundred twenty sentences in *Sans*. Beckett then wrote the number 3 on four separate pieces of paper, the number 4 on six pieces of paper, the number 5 on four pieces, the number 6 on six pieces, and the number 7 on four pieces of paper. Again drawing randomly, he ordered the sentences into paragraphs according to the number drawn, finally totalling one hundred twenty." Ruby Cohn. *Back to Beckett* (Princeton: Princeton University Press, 1973), p.265.

[61] Given that there is a window of only eight words less until the next lowest prime (761) and four words more until the next highest (773) there is a chance this is a coincidental figure. Given Beckett's close interest in mathematics, however, and specifically the clear thematic concern with mathematical exhaustiveness and its impossibility throughout his work, it is a reasonable assumption that *a* prime number would be chosen for the total sum of words in *Lessness*. For an examination of Beckett's close attention to permed word and sentence numbers in his notes for an unfinished work, *Long Observation of the Ray*, see Steven Connor, 'Between Theatre and Theory: *Long Observation of the Ray*', in John Pilling and Mary Bryden ed. *The Ideal Core of the Onion: Reading Beckett Archives* (Reading: The Beckett International Foundation, 1992), pp.79-98.

the overriding preoccupation with algorithmic processes in the earlier *Watt*.[62] The significant movement from these pieces to the late work of which *Lessness* is an example can be understood as a movement from depiction to execution. Where *Watt* and *Molloy* represent characters engaged in algorithmic processes of ordering, the later works are algorithmic at the level of construction or composition, or present characters who are *acted on* by algorithmic processes rather than enacting them. If the first process is most apparent in Watt's repeated formalisations and mathematical communication, the second finds its clearest expression in the procedural directions of *Quad*, where only the necessity of avoiding both each other and the centre of the space hinders the actors 'programmed' movements. This is both a historical passage through emergent control and a movement towards technical virtuosity alongside scarcity of talent. Considered in terms of Deleuze's periodisation, the depiction that characterises the earliest works and that retains traces of demonstrable talent gradually recedes through Languages II and III, being finally replaced by technical virtuosity in the later pieces.

By the early 1980s it is possible to observe a corresponding technical movement in Beckett's prose and script work. In the late trilogy of prose works *Company*, *Ill Seen Ill Said* and *Worstward Ho* there is a distinct movement towards the image, as identified by Deleuze. This is not a lush or floral description that would constitute an abundance of talent, but an abstracted, technical manifestation. Deleuze specifies as much in *The Exhausted* where he is careful to establish the image of Language III as the

> ...pure and unsullied image, one that is nothing but an image...reaching the point where it emerges in all of its singularity, retaining nothing of the personal or the rational...ascending to the indefinite as if into a celestial state. *A* woman, *a* hand, *a*

[62] Susan Brienza and Enoch Brater, 'Chance and Choice in Beckett's *Lessness*', *ELH* vol.43 no.2 (Summer 1976), p.245.

> mouth, *some* eyes...some blue and some white...a little green with white and red patches, a small field with crocuses and sheep.[63]

In parallel to this abstraction of the irrational, impersonal image from text, the works that literally produce an image engage in a similar process. As discussed above in relation to *Quad*, in the scripts of the television works there is a progressive reduction of dialogue and descriptive text in favour of strict directions for movement, music, camera and light. *Nacht und Träume*, the last of the television pieces, consists of thirty numbered directions for specific movements of a dreamer, his dreamt self and a pair of hands, each denoted by a single letter, plus eleven fades, two camera movements and four musical cues. Both of these movements are clearly prefigured by the series of prose pieces concerned with finite, abstract spaces and the movement of bodies within them that is comprised of *The Lost Ones*, *Ping*, *All Strange Away* and *Lessness* that immediately precede them, and clearly indicate an ongoing technical movement in Beckett that coincides with the emergence and development of Language III at the start of the 1980s.[64]

In Beckett's writing, corresponding both historically and technically with the emergence of computation and the control society, it is possible to observe the conditions of a prospective contemporary minor practice in development. The promotion of noise through silence or nonexistence alongside algorithmic processes and abstracted images; the politicisation of this silence-as-noise through its affirmative function in contrast to control, preventing the exhaustion of total formalisation; the application of a technical virtuosity that cannot be configured as talent. Each of these three characteristics is present in Beckett's work by the time that computation becomes ubiquitous. I will now examine the impact Beckett's writing

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[63] Deleuze, *Essays Critical and Clinical*, p.158.

[64] Connor suggests that the unpublished *Long Observation of the Ray* might constitute the point at which the two concerns, the technical permutation of possibility for both diegetic action and textual composition meets with the interest in images derived from cinema and worked out through *Play* and *Film* in the early 1960s. Connor, 'Between Theatre and Theory', p.79.

may have on the critical modes of the present era addressed in the ‘Note on Hacking Theory’ that concludes Part One, before moving towards possible connections this minor mode may be able to create with the major modes that define cultural production in the recent, developed form of the control society or gamespace.

Note on Beckett and Critical Hypertrophy

In Part One of this thesis it is made clear that, in addition to engaging with ideas of noise, politics and scarcity of talent, a contemporary minor practice must also produce a critical mode that can function without falling into the realm of the serviceable informatic commodity. In terms of this process, an examination of the ways in which certain critical readings of Beckett move away from traditional hermeneutic criticism into more 'creative' or 'experimental' areas – and I use these terms with an awareness of their problematic nature – provides some fascinating results from the position of a counter-control practice in theory. Beckett's writing serves both as model and catalyst for a critical hypertrophy, implementing points of noise or nonexistence within coded, patterned and visualised processes that are able to reproduce themselves in theory. There is a sizeable body of critical writing that attempts to address Beckett in terms of a definitive critical paradigm and in doing so finds itself pushed into a hypertrophic state, a form of writing where the hermeneutic work of criticism is augmented with various degrees of noise in the form of other discursive modes. The developments within Beckett's minor practice move at the same time towards the technical major modes of the control society and the location of bugs, undecidable states and noise within these modes. There are a number of theorists who, upon encountering Beckett's writing, manifest in their work a turn away from definably critical modes into indeterminate forms that fall between critical and more experimental forms of writing, and through an examination of this work it is possible to further grasp Beckett's role within a contemporary minor practice.

Bataille's 'Molloy's Silence', is an early example of this occurrence. Bataille, writing shortly after the publication of *Molloy*, attempts to find in the character of Molloy a pure, destructive negativity that is aligned with Blanchot's prevailing

response. As a result of his encounter with the novel, his essay is instead pulled through undecidability into affirmation in both argument and form. Bataille's admission that he himself would be Molloy but for the discomfort that this would entail constitutes in itself a collapse of the boundaries between critic and subject; subsequently, one of the two footnotes to the essay does not provide additional reference material or any other information relevant to a specific point but instead presents a personal recollection of the author's youthful encounter with a man who furnishes his experience of reading *Molloy*, the critical value of which is impossible to determine in the context of Bataille's initial premise:

> He was not exactly the figure I am speaking of now, being quite a chatterer, more so than even me. He seemed satisfied with his lot and, as an old man, took pleasure in expressing his satisfaction to the boy of fifteen or twenty I then was. I listened in astonishment. Yet the memory I have of him, together with the incredible dread it still provokes, never fails to inspire in me the silence of a brute beast. (Meeting him so distressed me that a little later I began to write a novel in which a man who met him in the country killed him, perhaps primarily in the hope of acquiring the same animality as his victim.)[65]

Reflecting a hermeneutic intent similar to that of Bataille, Ihab Hassan comes to Beckett at the end of *The Dismemberment of Orpheus*. Hassan initially locates Beckett at the pinnacle his search for a "literature of silence", but when he arrives at this point he finds a double "silence" that troubles his objective. The first of these silences is "auto-destructive, demonic nihilist", while the second is "self-transcendent, sacramental, plenary."[66] The combination of these two silences correspond to the idea of hacking as an allegory for counter-practice set out above: the addition of noise and the impediment of functionality and executability, but also the prospect of technical virtuosity being employed for its own sake, removed from commercial concerns.

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[65] Georges Bataille, 'Molloy's Silence', p.140.
[66] Ihab Hassan, *The Dismemberment of Orpheus*, p.248.

The transmission of both signal and noise that we have already identified in Beckett problematises the critical capacity to formalise through binary states. From the point at the end of *The Dismemberment of Orpheus* where he meets the two, seemingly incompatible silences in Beckett, Hassan's writing is transformed, and abandons hermeneutic movements in search of solutions in favour of a more 'experimental' approach. This process reaches a peak in *Paracriticisms: Seven Speculations of the Times*, where the chapter 'The New Gnosticism' opens with twelve epigraphs from diverse sources; *The Tibetan Book of the Dead*, William Blake's *Jerusalem*, Henri Bergson's *The Two sources of Morality and Religion,* Marshall McLuhan's *Understanding Media* and an article from *Time* magazine, immediately followed by the statement "but what do twelve epigraphs prove?" [67] The abstraction of these twelve unrelated texts followed by their disavowal is immediately followed by the form of the text moving from prose to free verse:

The theme of this
Paracritical essay
is the growing
insistence of Mind
to apprehend reality im-mediately;
to gather more and more mind
in itself:
thus to become
its own
reality.
Consciousness becomes all.
And as in a Gnostic
Dream,
Matter dissolves
Before the
Light. [68]

This pitch from critical to 'experimental' or 'creative' form and language, where "the language of judicious authority is shredded by digressions, intermissions and

[67] Ihab Hassan, *Paracriticisms*, Urbana: University of Illinois Press, 1975, p.120.
[68] *Ibid.,* p.122.

interventions quotations, short inset anecdotes and so on" by no means exists in isolation in Hassan's work after an encounter with Beckett. [69]

Russell Smith's 1998 essay 'Beckett, Negativity and Cultural Value' focuses on Beckett's writing alongside theoretical work by Bataille, Shira Wolosky and Steven Connor in an attempt to address what he sees as a persistent attempt to reconfigure Beckett's negativity as critical or cultural positivity. That the piece ends up in a bind between the two possibilities is unsurprising given the way both Smith and the critical writers he works with fail to grasp the ways that control-era cultural processes realign the relationship between positivity and negativity. Subsequent works by Smith, primarily published in online journals, reveals a formal move from an academic criticism into a series of experimental creative-critical hybrids. The piece 'Posing for a Photograph' consists firstly of a pair of photographs: one is black and white and depicts a young boy posing in his school uniform, satchel over his shoulder; the other is more contemporary, in colour, a girl in her pink school dress, bag in hand. The question of who these children might be is left unanswered by the accompanying text, which combines personal reflection and memories on being photographed with a collage of quotations from Beckett, Roland Barthes, Pierre Bourdieu and several others. In this piece Smith's writing manifests traces of the theoretical work he carries out in engaging with Beckett, but abandons much of the hermeneutic dimension in favour of a speculative approach that forms correspondences with both the image and the online mode of publication.

> This photograph is the very definition of banality: the double contingency of a person and a moment - a still point in space-time. This is the everyday: the ceaseless repetition of the unique. Except that here it is me, me on my first day of school. Only for me is this photograph complicated, painful, lacerating. Its banality, the poverty of its aesthetic resources, is its guarantee of reality. In fact, its banality is what hurts the most.[70]

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[69] Steven Connor, *Postmodernist Culture,* p.230.
[70] Russell Smith, 'Uniform: an Essay'. http://www.ensemble.va.com.au/ginger/russell/index.html, Last accessed 20/03/2008.

From the cross-media nature of its construction, taking in text and images, to the occasional influx of a political consciousness that appears not through direct statements but in the inclusion of excerpts from Foucault's *Discipline and Punish* and Wark's *The Virtual Republic*, 'Posing for a Photograph' is in many ways a piece of critical writing, yet begins to fulfil some of the criteria for contemporary minor practice. That this ostensibly critical work that cannot maintain its critical distance emerges from an encounter with Beckett is extremely interesting following the examples set out above, and helps point the way towards the prospective critical function of minor practice in the developed control era.

If the Beckett connection is formal and thematic in Smith's 'Posing for a Photograph', it is never less than explicit in his '…All these words, all these strangers…'. This piece takes Beckett primarily as its subject, and its contrasts with the earlier 'Beckett, Negativity and Cultural Value' could not be clearer. In this piece the page is divided across into three columns, each consisting of quotations from *Texts for Nothing* and *The Unnameable*, interspersed with Smith's discourse, which combines a commentary on Beckett's writing with excerpts from Foucault, Blanchot and others. Alongside this runs a 'creative' thread similar to the related passages in 'Posing for a Photograph' but employing a language of nonexistent or marginalised information through the inclusion of incomplete or under-erasure words and statements. The conclusion of the piece heralds the overwhelming effect of Beckett's insistent oscillation of pattern with silence/noise over the continuing will to authoritative critical writing;

> you run your fingers over your little wooden skull, ~~imagine~~ the thoughts it contains, ~~little~~ wooden thoughts, hollow thoughts, ~~worm-eaten thoughts,~~ thoughts that knock together like musical blocks, or little thoughts on wheels that you tug along with a string, and what words do you say now with your wooden clack

~~mouth tongue~~ lips, ~~wooden words,~~ borrowed words, idle words, or
sad and ~~lonely~~ lovely words[71]

As addressed in the 'Note on Hacking Theory' above, theory is cast into a highly problematic position in the control era of commodity informatics. The market-researched, hermeneutic form that Wark indirectly critiques as corresponding to the algorithm in *Gamer Theory* and the notes to *A Hacker Manifesto* suggests a connection between the abstraction of critical texts and the will to establish a signal without noise that Jameson first observes in Propp. This form of critical writing holds itself up with an authority that cannot address the minor, because the minor is that which cannot be adequately coded, patterned or targeted. Beckett's writing is an example of cultural production that denies this process, that is noisy *as a result of silence*, and as a result an art that pushes the encoding properties of criticism into hypertrophic states, states of excess that magnify noise *alongside* signal. To this end, the catalytic role it can play in stimulating cultural criticism in the control era is a crucial aspect of its minority. Having established this prospect I now move on to consider Beckett in a way that begins to productively suggest connections between the contemporary minor characteristics of his work and the commercial modes of the contemporary major. I do this through an examination of the connection between Beckett's writing and the specifically control-era notion of horror as incomplete information, non-executable processes, or degraded visuality.

[71]Russell Smith, '…All these words, all these strangers…',
http://www.bbk.ac.uk/english/conf/anotherbeckett/smith/, last accessed 20/03/08

Chapter 5: Beckett and Informatic Horror

As Wark suggests in *A Hacker Manifesto*, the abstraction of informatic structures from objects that defines the period of the control society is in itself a politically neutral act, enabling not only sedentary reductions but also new possibilities. In considering the "invisible, subtle processes and feedback loops"[72] that Lovink and Schneider define as essential to cultural theory in the present era, Wark's notion that "to abstract is to construct a plane upon which otherwise different and unrelated matters may be brought into many possible relations" provides a crucial way of thinking about the minor function of cultural objects.[73] When cultural, political and aesthetic content becomes of secondary – or at best equal – importance to the formal or technical function of narrative and visuality, it is important to find ways to directly address these processes and the ways they can be rendered noisy and imperfectly codable. In moving towards the final part of the thesis, where the essential commercial function of the contemporary major emerges as the central concern, it becomes important to begin considering ways in which the minor tactics suggested in Beckett can be connected to the world of contemporary forms and genres. In this chapter an examination of the informatic function of Beckett's work alongside examples drawn from horror cinema begins to effect this transition. A technical consideration of narrative and visuality abstracted from both types of text prepares the ground for a later consideration of a particular strain of post-VHS horror cinema as the emblematic genre of the informatic minor in Chapter 7.

A glance through Beckett's first writing after *Watt* reveals an increasingly technical abstraction of narrative and image, and a correspondingly increasing

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[72] Geert Lovink and Florian Schneider, 'Notes on the State of Networking', http://www.makeworlds.org/node/100. Last accessed 09/05/09.
[73] McKenzie Wark, *A Hacker Manifesto*, paragraph 008.

connection with popular genres. *Waiting for Godot's* relationship with Vaudeville is well trodden, but less so is the idea that *Endgame*, like *The Unnameable*, connects to post-apocalyptic ideas central to contemporary horror and science fiction through the implication that outside of the stage or page space is a wasteland in which nothing survives, silent and calm "because there are no more navigators."[74] *Imagination Dead Imagine, Ping, Lessness* and *The Lost Ones* inhabit similar sci-fi territory through the abstracted, sterile and geometrically defined environments they depict, of which the hermetically sealed "flattened cylinder fifty meters round and sixteen high for the sake of harmony" of *The Lost Ones* is emblematic.[75] Brian McHale proposes this type of retrospective, aesthetic connection between Beckett and science fiction in his essay 'Lost in the Mall', stating that he:

> …would like to propose an…explanation, in terms not of genealogies and shared origins but of reverse chronology and *post factum* influence. In full consciousness of the paradox, I would like to propose that Beckett's affiliation with science fiction has come after the fact; that Beckett's writing never had any connection with science fiction before (before, say, 1982), but that it has one now. I'm proposing that Beckett…has been "retrofitted", in effect, as a science fiction [writer].[76]

While McHale's comparison is interesting in thinking about Beckett and popular genre, it functions solely at the level of content. In thinking about a contemporary minor practice it is necessary to locate connections that relate to form as informatics, or the technical function of the text in question. A similar proposition to that made by McHale in relation to sci-fi is possible at this technical level with certain horror films. In order to place the two objects, the Beckett text and the horror film, on the same plane it is necessary to abstract informatic structures from both – a critical methodology that addresses technical virtuosity rather than talent. This is why it is important to specify a particular type of informatic horror as opposed to the broader

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[74] Samuel Beckett, *Complete Dramatic Works*, p.124.
[75] Beckett, *Collected Short Prose*, p.202.
[76] Brian McHale, 'Lost in the Mall', in *Engagement and Indifference* (New York: SUNY Press, 2001), p.115.

genre of horror novel, story or film in terms of the control era; to demonstrate the abstraction of objects into indifferent data that is both the means of control and the prospective vector of counter-practice in the present era, and to demonstrate the definitive movement towards informatically-degraded visuality that makes Beckett's prose work an instructive example of this counter-practice.

Throughout Beckett's work, the characters who are 'acted on' by disembodied voices in *Molloy, Eh Joe* and *Rockabye* amongst others present obvious connections to the ghost story, but again these are predominantly issues of content. At the informatic level that is of concern here, each of Beckett's stories, plays, radio and television works after *Molloy* are horror tales of sorts – at the informatic level. This is because they each manifest the characteristics of contemporary minor set out above, the presence of nonexistent or irrelevant information that prevents the complete codablity and executability of the text, adding noise to signal in the digital sense.

Ruby Cohn touches on the presence of not-quite definable information in 'Ghosting through Beckett', but attributes ghostliness more to the "ghosts of … motifs" and "the ghosts of western culture" than to the technical function of these 'ghosts' as points of undecidability.[77] In the control era it is not a question of what the ghosts are *of*, but of what a ghost *does*, technically, to processes concerned only with the definition of data sets through binary algebra, which is quite different to the cultural types of binary opposition that concern structuralism and poststructuralism. As argued above in relation to critical responses, Beckett's stories and plays are hypertrophic not because they eliminate pattern, code or cultural reference but on the contrary because they proceed through the application of these elements, encouraging critical investigations that inevitably reach points they cannot proceed beyond without abandoning their hermeneutic intent. Graham Fraser, in an essay on Beckett's *Ill Seen*

[77] Ruby Cohn, 'Ghosting through Beckett, *Samuel Beckett Today* no.2 (Amsterdam: Rodopi, 1993), p.1.

Ill Said, connects this undecidability or nonexistence to the notion of the ghost in Derrida's *Spectres of Marx*, stating that:

> [s]uch blurring points to [a] deep running spectrality in Beckett's late work. Nowhere is this ghostly ambiguity more crucial than in ontological boundaries of the text. Indeed, as these boundaries collapse and interpenetrate, the work evinces less an ontology than, to adapt Derrida once again, a "hauntology" – the logic of the spectre...Derrida is attracted to the notion of ghosts and spectrality in part because ghosts violate the binary categories of alive and dead, body and spirit, present and absent.[78]

While Fraser's notions of collapse and interpenetration are somewhat vague, the idea of 'spectrality' is a useful one in thinking about the informatic narratives with noise that Beckett moves towards. In the control era the "logic of the spectre" is no longer limited to the problematic relationship between language and meaning. When binary states are created not by socio-cultural factors but the indifferent function of machines, then the object between the pair of states becomes of great interest at the inseparable levels of the technical and the political. In Chapter 7 the horror genre is considered more concretely and historically in terms of a prospective contemporary minor practice, but at this stage I will consider the function of this type of noise in a quite formal, abstract manner. Here I concentrate on tracing the informatic function of errant or negligibly-important information in the second half of *Molloy,* where the algorithmic procedures of *Watt* are both mediated through narrative and run through with noise*,* before addressing a pair of examples, Beckett's *Ill Seen Ill Said* and Daniel Myrick and Eduardo Sánchez's 1999 film *The Blair Witch Project*, in terms of the common, noisy informatic function that can be abstracted from them.

In a nascent, partial manner *Molloy*, and in particular the second half of the novel, manifests the contemporary minor relationship between signal and noise, or that which can be cast into a data type or parsed by an algorithm and that which cannot. It connects both backward, to Kafka's novels of indeterminate investigation that appear

[78] Graham Fraser, 'No More Than Ghosts Make', *Modern Fiction Studies* vol.46 no. 3 (Fall 2000), p.777.

at the beginning of the transition from disciplinary to control societies, and forward to the technical, informatic concerns of the contemporary period that are addressed at length in Part One of this thesis. In the second half of *Molloy* the detective Moran produces a discourse of exhaustive formalisation. His narration of the hours before he learns of Molloy, and of his instructions to find him, is defined by the systematic accounting for of each detail:

> I remember the day I received the order to see about Molloy. It was a Sunday in summer. I was sitting in my little garden, in a wicker chair, a black book closed on my knees. It must have been about eleven o'clock, still too early for church.[79]

It is the addition of a single unit of information, the existence of Molloy as recounted by Gaber, to Moran's field of knowledge and thought that begins the intrusion of noise into his discourse. It is from the point of his meeting with Gaber – at which the "Molloy question" is first introduced to him – that Moran's procedural method begins to break down. The first crucial thing to note in the second half of *Molloy*, then, is that the change in the form of narration and the emergence of indeterminacy and undecidability into the formalisations of Moran must be attributed to the addition of a single unmeasurable or negligibly-important unit of data; as Moran states soon after his meeting with Gaber, the Molloy mission seemed "unworthy" of him and he could not take it seriously. It is precisely this lack of definable importance that is crucial to the function of noise and non-existence in the digital era.[80]

From the point at which he first hears the name of Molloy and struggles to attribute it a definable importance, the neatness of Moran's discourse begins to be perceptibly contaminated with statements of unmeasurable or unrepresentable meaning. The remainder of the novel consists of Moran attempting, with decreasing success, to reassert a procedural order over the emerging noise. Whilst considering the "Molloy question" Moran must remind himself of the algorithmic processes

[79] Beckett, *Molloy, Malone Dies, The Unnamable*, p.92.
[80] *Ibid.*, p.97

through which he addresses the world, defining his "methodical mind" and stating that a "prolonged reflection as to the best way of setting out" always forms "the first problem to solve, at the outset of each inquiry."[81] Whilst working through a stage in this systematic problem-solving process, the consideration of "the capital question of the effects to take" with him, Moran meets his son's request to go out without a specified destination with the statement "vagueness I abhor", making clear the imperative role of noise elimination in his communication system.[82] As he prepares to set off on his ill-defined quest to locate Molloy, Moran finds his systematic, imperative mode troubled by the noise of unconsidered alternatives and imperfections:

> [T]o my son I gave precise instructions. But were they the right ones? Would they stand the test of second thoughts? Would I not be impelled, in a short time, to cancel them? I who never changed my mind before my son. *The worst was to be feared*.[83]

In these early stages of Moran's story *Molloy* presents a diagram of the formal connections between the impossibility of asserting the algorithm and the emergence of horror in the control society. The presence of even a single unit of information that cannot be adequately defined or parsed drives a growing ratio of noise to signal.

For the purposes of this abstract, formal analysis it is useful to note that at its start, the quest or investigation is suggested as the narrative arc of *Molloy*, while at the end nothing of any importance to the solution of the quest or investigation has been determined. This is not exactly the plot of disingenuous informatics that Galloway puts forward as the emblematic conspiracy form of the control era; rather it is the plot of noisy – that is, unmeasurable, irrelevant, unsorted or unparsed – informatics, where information is not withheld by the form but is rather overly present, making it impossible to decide between what is relevant to the plot and what is not. The second

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[81] *Ibid.*, P.98.
[82] *Ibid.*, p.99.
[83] *Ibid.*, p.103. Emphasis added.

half of Molloy does not present the steps by which somebody beat somebody else (or in this instance found somebody else), nor the movement into interminable, entropic disorder that characterise the preceding novels of Kafka, but rather a series of steps limited by time. The end of Moran's investigation is motivated not by an arrival or discovery but by the arbitrary reappearance of Gaber to "put a stop to these frolics"[84], soon after which the narration loops back to its starting point.

As argued in Chapter 3, Beckett's body of writing is of particular use in considering a control-era minor practice because it bridges the period from Kafka's transitional period to that of the developed control society, and from the technical and theoretical beginnings of computation to its ubiquitous, multimedia present. This periodisation remains extremely useful in considering the way in which, from *Molloy* onwards, the control-era horror of noisy informatics is incorporated into texts that are increasingly formal, aural and visual. To demonstrate this process I will examine Beckett's late prose work *Ill Seen Ill Said* alongside *The Blair Witch Project*. At the abstract, informatic level both works evidence an application of noisy informatics in a way that connects narrative and visuality, and as such their connections present a useful way of thinking about the contemporary minor practice that can address the control society of the present.[85]

At the informatic level *The Blair Witch Project* proceeds through the presence of errant information within the ostensible documentary form – a stripped-down example of the algorithmic, information-commodifying quest narrative. The film is allegedly cut together from the found footage of three documentary filmmakers – footage concerning a legendary witch in the Maryland woods – a year after they

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[84] *Ibid.*, p.163

[85] This is not an altogether novel connection; upon the film's release Chris Stamper noted, in an article for *Wired* magazine, that "*Blair Witch* owes more to Samuel Beckett […] than Wes Craven and *Nightmare on Elm Street.*" Chris Stamper, '*Blair Witch*: A Scary Home Brew', at: http://www.wired.com/news/politics/0,20721-1.html?tw=wn_story_page_next1. Last accessed 10/05/09.

supposedly disappeared. Beyond a shared visual dimension which will be addressed later, *The Blair Witch Project* functions in abstract relation to *Ill Seen Ill Said* firstly through its presentation of information. The application of the documentary form is most keenly felt in the film's editing, which removes many elements of narrative film style – zooms, tracking shots, shot/reverse shot sequences, fades, montage – in favour of communicating information through a procedural, step-by-step process that directly corresponds to the apparently discrete succession of 'images' in Beckett's writing. The introduction of noise that troubles this discretion in both texts is central to their common narrative momentum and discontinuity.

In *The Blair Witch Project* the explicit project to gather information about the presence and activities of the supposed witch is rendered indeterminate by the volume of rumours and stories that are presented to the filmmakers by interviewees on camera and provided in the body of supporting media that accompanied the film's release.[86] The narrative, although beginning as a search or project due to its title and documentary form, presents a perpetual grasping at meaning and sense for filmmakers and viewer alike and it is at this informatic level, in the parsing of disparate, unclear or nonexistent data, that the crucial connections between *Blair Witch* and *Ill Seen Ill Said* in terms of the narrative dimension of a control-era minor practice are to be found. Both works present an attempt to define an unknown space both physically and historically, and in both cases space and narrative are shown to become infected by the spreading out of an irrational or undecidable core.

[86] The website at www.blairwitch.com was promoted in parallel with the film's release in 1999, at which point the story was still being presented to the public as true, and used to flesh out the mythology of the area and maintain the idea that *Blair Witch* was made up of genuine footage concerning a real disappearance. The website provides supporting material including a history of the 'Blair Witch' legend dating back to 1785, interviews with police officers, participants in the search and a local anthropologist who discusses the footage and its discovery, local news reports concerning the disappearance, images and audio relating to the recovered footage and a journal belonging to one of the filmmakers. An additional documentary, *The Curse of the Blair Witch*, was produced by Myrick and Sánchez and released in the run-up to the release of the theatrical film, providing further information in support of the fictional story.

The procedures of the filmmakers in *Blair Witch* and the disembodied eye in *Ill Seen Ill Said* necessarily change, like Moran's investigative procedure, from algorithmic attempts at mapping and formalisation, to endless attempts at indifferently parsing disordered information of uncertain quantity and relevance. Fraser notes this change in the narrator of *Ill Seen Ill Said*, who becomes "frustrated by…hauntological indeterminacy."[87] In making this claim Fraser quotes the following passage:

> Already all confusion. Things and imaginings. As of always...If only she could be pure figment. Unalloyed. This old so dying woman. So Dead. In the madhouse of the skull and nowhere else…Cooped up in there with the rest. Hovel and stones. The lot. And the eye. How simple all then. If only all could be pure figment. Neither be nor been nor by any shift to be.[88]

The difficulty faced by the narrator here is one of separating "things" from "imaginings", or of placing objects into the definable categories of either "figment" or object. It is the undecidability between states that troubles the subtle processes of the control era. This undecidability is equally definitive of *The Blair Witch Project'*s informatic structure, where the increasing amounts of data provided by interviewees and the impossible geographical experiences of the filmmakers aligns with their increasingly chaotic, shaky footage, causing every visual and aural detail to be at once potentially significant and potentially irrelevant, impossible to define as either "thing" or "imagining." As Connor notes of *Ill Seen Ill Said*, "the certainty of what is 'actually' seen is extremely mobile, subject to unpredictable emergence and fading…increasingly, imagined space blends into the evocation of the physical space."[89] It is worth reiterating that, in contrast to the narrative of disingenuous informatics, here it is the impossibility of deciding between the relevance and irrelevance of information that defines the formal function of both texts.

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[87] Graham Fraser, 'No More Than Ghosts Make', p.777
[88] Samuel Beckett, *Ill Seen Ill Said* (London: John Calder, 1997), p.20.
[89] Steven Connor, 'Between Theatre and Theory', p.95.

That the core of the undecidability in both *Ill Seen Ill Said* and *The Blair Witch Project* is a desolate house is a further significant parallel between the pair. This is not a return, however, to the critical modes of the preceding era, with its insistence of the centrality of the "icon" as Lovink and Schneider put it. What is crucial here is not simply the traditional association with the image of the haunted house but the fact that the materiality of both buildings' presence within their respective diegeses is highly questionable. In *Ill Seen Ill Said* the cabin is said to lay at the "centre of a formless place",[90] its influence tangibly spreading over the surrounding space and consequently the text itself:

> How came a cabin is such a place? How came? Careful. Before replying that in the past at the time of its building there was clover growing to its very walls. Implying further more that it the culprit. and from as from an evil core that the what is the wrong word the evil spread.[91]

A ruined house, the final collapsing point of the narrative in *The Blair Witch Project*, is the location from which the filmmakers disappear. As with the cabin whose origins cannot be specified in *Ill Seen Ill Said*, this house appears out of nowhere; the filmmakers come across it within seconds of leaving their tents at the beginning of 'night eight' despite the fact that they pitched in broad daylight, with no house to be seen. Within the house linear organisation of space is indeterminate; as the filmmakers move around the house, the same scream comes from opposing ends and levels. As the final filmmaker Heather moves towards the basement, her camera movement takes on the smooth quality of a tracking dolly shot in clear contrast to the near-permanent camera shake that characterises the majority of the film, suggesting that even the technical aspects of the film form become haunted. As the sole microphone is on the other filmmaker's camera, already in the basement, she walks (or is moved) towards her own scream, and as she falls to the ground the film's final

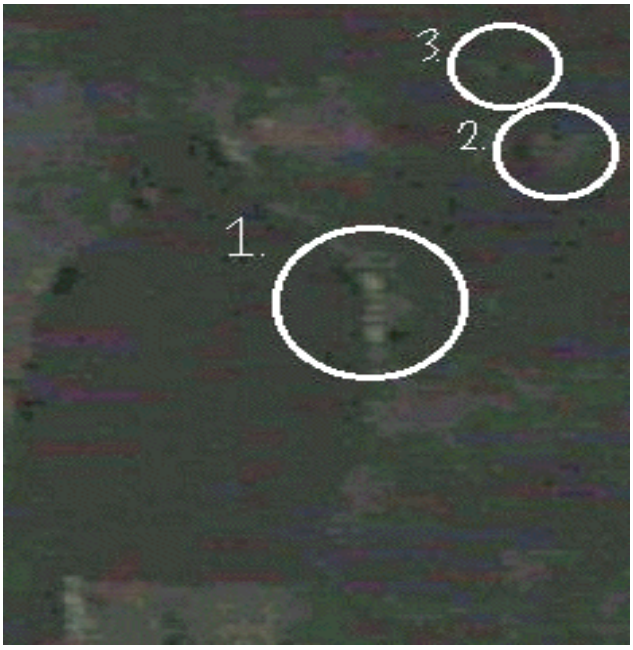
[90] Beckett, *Ill Seen Ill Said*, p.8.
[91] *Ibid.*, pp.8-9.

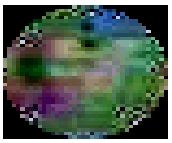
shot presents an image that references to a half-heard rumour from an earlier part of the film. Here data of negligible importance becomes central to the film's horror.

Final shot of Daniel Myrick and Eduardo Sanchez, *The Blair Witch Project* (1999)

This image provides a useful link to the second significant informatic function in *Ill Seen Ill Said* and *The Blair Witch Project*; the material capacity of the form to carry information, either visually or textually. Put another way, a crucial question in addressing visuality in the control-era minor work is that of resolution, or the informatic content of an image. The relationship between *Ill Seen Ill Said* and *The Blair Witch Project* raises a crucial issue in approaching digitisation and noise-reduction in narrative; that of the relationship between resolution and 'realisticness' or information-heavy representation.[92] On one *Blair Witch Project* fan website there is a page devoted to the close analysis of the shot reproduced above, in which the indistinct, low-information image is cross-referenced with the body of undecidably-important information supplied at the start of the film.

[92] This awkward term 'realisticness' is used in place of the problematic and loaded 'realism', which necessitates an entirely separate and extensive debate.





[93]

Quite obviously it is impossible to sufficiently distinguish the details picked out for analysis here, yet theories provided with this image refer to the presence of a hand holding the map the filmmakers earlier lost (circle 1, detail on the left) and the face of one of the townspeople they earlier interviewed (circle 2, detail on the right), amongst many other theories. Even the digitally-enhanced details provided below the main image, which apparently show the hand and the face respectively, cannot extract a definable image. There is simply not enough information in the image for it to be cast into an entirely intelligible state, just as there is simply not enough information in the images of Ill *Seen Ill said* for the viewing eye to attribute a definite state to the woman it examines.

Connor notes that "intermittence is one of the most troubling features of vision in Beckett's eye-pieces."[94] As demonstrated in the 'Noise' section of Chapter 2, the

[93] This image of the penultimate shot of *The Blair Witch* Project presents a number of details that contributors to the website argue provide some explanation of the film's ending. Image from http://www.angelfire.com/md/blairwitch/cornertheory.html. Last accessed 11/05/09.

quality of an image in the digital era is evaluated by the amount of information it contains, and intermittence or noise is a result of insufficiencies within this body of information. *The Blair Witch Project* is shot on two cameras, a Hi-8 camcorder that shoots in a resolution of around 550 x 480 pixels and a 16mm film camera.[95] Both formats give significantly reduced sharpness, depth and clarity of image when compared to either the technical standard of 35mm or the massive resolutions of up to 7680 x 4320 pixels possible on digital formats. The implication of this technical distinction is clear; where the Hollywood cinema employs digital technology in shooting, editing and postproduction in pursuit of the noiseless image to accompany its info-narrative, it is the lower quality image of domestic camera formats that create horror through reduced definability of information in both image and narrative in *The Blair Witch Project*. This comes back to both Dixon's claim that the digitisation of cinema aims to make "the impossible seem ordinary, and the everyday seem, paradoxically, airbrush perfect" and to Kittler and Bateson's suggestion that a degree of noise is a central component of human experience.[96] While the control-era Hollywood cinema employs technical developments to generate higher resolutions, and to create greater spectacles in the shape of monsters, spaceships and environments, this has less to do with creating a more 'realistic' image than it does placing the maximum amount of data on screen.

The recent turn towards 'handheld' films from the major commercial cinema, most notably in Matt Reeves' *Cloverfield* (2008), suggests awareness on the part of major culture of the technical distinction between the affective noisiness of *The Blair Witch*

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[94] Connor, *The Ideal Core of the Onion*, p.95. Other examples of this intermittence of vision in Beckett given by Connor are the unpredictably oscillating light of *The Lost Ones* that brings a "slow deterioration of vision" and the jerking light of *Play*.

[95] Film, as an analogue medium, does not record pixels and cannot be directly compared to this digital notion of resolution. The more usual notation of analogue format resolution is by lines television set; 35mm displays somewhere around 1000 lines, practically reduced by cinema specifications. 16mm displays around half of this. HI-8 format displays at 420 lines per frame. High Definition Video displays over 4000 lines and counting.

[96] Wheeler Winston Dixon, *Film Genre 2000*, p.3.

Project and the technically-perfected image quality that can only result from extensive digital processing. As established in the combinations of noisy narrative with noisy image presented by *The Blair Witch Project* and *Ill Seen Ill Said*, when narrative corresponds to these technical distinctions it becomes possible to envisage a technical distinction between major and minor. In light of this it must be noted that *Cloverfield* marks an attempt to present *both* the low-resolution image *and* the algorithmic, procedural major plot, the result being a conspicuous disjunction between the image quality and the other production values (not only plot but lighting, high-quality digital effects and the uniform, constantly-foregrounded 'Hollywood attractiveness' of the cast). To look at the curse video footage from Hideo Nakata's 1998 film *Ring*, by contrast, the fuzzy, low-resolution images that result from multiple generations of copying analogue video correspond directly to the informatic function of the film's narrative, just as the indeterminate, stuttering languages of *Ill Seen Ill Said* and parts of *Molloy* are central to their minor narrative function.[97] In these instances the allegorical and literal senses of noise come together, the fractured, incomplete narrative being presented to the user through fuzzy, low-information images. The final aspect of Beckett's writing that makes it essential in considering a prospective control-era minor practice is the way it literally *and* allegorically lends itself to the abstraction of both narratives that manifest noise as nonexistence and low resolution images that are the visual equivalent of these narratives.

[97] Hideo Nakata's *Ring* concerns a cursed videotape that brings death within one haunted week for whoever views it. The only way to survive is to copy and distribute the videotape, endlessly redistributing the vengeful spirit Sadako that both produced and is preserved within it. The repeated dubbing of the analogue videocassettes in the film adds the noise of generation loss to the images they contain, a technical feature that is doubled in the indeterminacy of attempts by the protagonist to alleviate the endless process. As Eric White notes of the film's ending, "the curse never could be lifted by restoring Sadako symbolically to the human community by means of a proper burial, because she was not herself 'human' to begin with, and her ultimate motivation was never, therefore, humanly intelligible." Eric White. 'Case Study: Nakata Hideo's *Ring* and *Ring 2'*, *Japanese Horror Cinema*, ed. Jay McRoy, (Edinburgh: Edinburgh University Press, 2005), p.40.

Curse video footage from Hideo Nakata, *Ring* (1998)

> I turn on my side which side the left it's preferable throw the right hand forward bend the right knee these joints are working the fingers sink the toes sink in the slime these are my holds too strong slime is too strong holds is too strong I say it as I hear it
>
> push pull the leg straightens the arms bends all these joints are working the head arrives alongside the hand flat on the face and rest
>
> the other side left leg left arm push pull the head and upper trunk rise clear reducing friction correspondingly fall back I crawl in an amble ten yards fifteen yards halt.[98]

Having examined at length the interrelated historical, technical and cultural factors that place Beckett's work at the emergent stages of a contemporary counter practice, I now move to consider the role of the commercial concerns that are definitive of control-era major practice and the ways in which the minor can add the noise of nonexistent data to these forms. Following from this, the final chapters of the thesis then work through some recent forms of cultural production that engage with the

[98] Samuel Beckett, *How It Is* (London, Montreal, New York: Calder, 1964), p.21.

commercial in moving towards contemporary minor forms that can exist and function within the advanced and advancing control society.

Part Three

Commerce, Major and Minor

In the 'Technology and Style in Cinema' chapter of *The Language of New Media* Lev Manovich articulates a historical movement through three differing theoretical approaches to realism, beginning with André Bazin's 'The Myth of Total Cinema' from 1946, moving through Jean-Louis Comolli's 'Machines of the Visible' from 1978 and concluding with David Bordwell and Janet Staiger's 'Technology, Style and Mode of Production', published in *The Classical Hollywood Cinema* in 1988.[1] Each of the theoretical approaches Manovich puts forward moves progressively towards the intersection of technology and commerce as the central focus of popular cinema production in the twentieth century. Where Bazin attributes the prospective realism of film to an enduring movement towards mimesis in human culture, and Comolli attributes it an ideological function – privileging the 'realness' of the visible in order to mask the invisible social and economic relations of production – Bordwell and Staiger define any movement towards realism as a "rational and pragmatic tool in industrial competition."[2]

This movement is useful in thinking about the distinctions between disciplinary and control approaches to film from both economic and the theoretical perspectives. In thinking about major info-narrative in the control era there are two crucial ideas that emerge from the movement Manovich puts forward. The first is that if, as Bordwell and Staiger suggest, every technological change within the commercial cinema is a result of "professional discourses articulat[ing] goals"[3] with the view to profitability, then the emergence of an algorithmic narrative form, for example, must meet this same goal in order to exist at all. The second idea relates not to the specific approach of any of the three theories Manovich puts forward, but rather to the identification of Bordwell and Staiger's work, in sharp contrast to that of Bazin or

[1] See Lev Manovich, *The Language of New Media*, pp.185-188.
[2] *Ibid.*, p.187.
[3] *Ibid.*

Comolli, with a cognitive approach to film studies that is based in intentional action rather than semiotic or psychoanalytic approaches, works from computational models of human cognition, and is as absolutely aligned with the informatic processes of the control era as its preceding modes are with the disciplinary era. As Steven Shaviro sums up, in deploring such an approach, cognitivism "'searches for causal, functional, or teleological explanations' of what it finds in film, rather than for interpretations or hermeneutic unfoldings. It relies mostly on 'computational' models of the mind."[4] Taken together these characteristics of cognitive film theory constitute the exact conditions of algorithmic info-narrative that are defined throughout this thesis as central to distinguishing major practice in the control era, but from the second-order perspective of criticism rather than the production of narrative itself.

In many ways the notion of cognitive studies follows the critical mode that Lovink and Schneider propose as essential in the era of 'Info-Empire', where subtle processes and feedback loops replace prior modes of discourse. This is not to say that Shaviro and other opponents of the cognitive mode such as Slavoj Žižek are incorrect, but rather that the consideration of the informatic function of cultural objects that they condemn with cognitivism is an essential diagnostic tool in considering both the productive modes of control-era major practice and the possible tactics of minor modes. In the remaining chapters of this thesis I will examine the processes that constitute the commercial dimension of major cultural objects in the control era, before working through some case studies where this dimension is both engaged with and rendered noisy. This chapter, and the three that follow it, deal with film and to a lesser extent television and video (as well as DVD and the computer as media player; essentially, the predominant formats for home rather than cinema presentation), as

[4] Steven Shaviro, 'The Cinematic Body Redux', *Parallax* vol. 14 issue 1 (Feb 2008), p.50. For a positive account of cognitivism see David Bordwell, 'A Case for Cognitivism', http://www.geocities.com/david_bordwell/caseforcog1.htm. Last accessed 19/05/09.

these remain the predominant commercial narrative forms. The final chapter examines the videogame, the form that is native to the control society and that is in the process of joining film in terms of distribution and profitability.[5]

[5] In April 2008 Rockstar Games' *Grand Theft Auto IV* made $310 million gross on its opening day of release, more than triple that of the corresponding major cinema release *Iron Man*'s opening weekend. The game currently holds the world record for the highest grossing single day for any entertainment product. See http://www.nytimes.com/2008/05/07/technology/07game.html, http://boxofficemojo.com/movies/?page=weekend&id=ironman.htm and http://gamers.guinnessworldrecords.com/news/130508_GTA_IV_break_record.aspx. All last accessed 19/05/09.

Chapter 6: Commerce and Control-Era Major Practice

In what Žižek grudgingly calls "arguably the best essay"[6] in Bordwell and Noel Carrol's cognitivist collection *Post-Theory*, Richard Maltby presents a case study of Hays Code-era Hollywood production that stresses an inherent ambiguity of narrative, intended to promote interpretive responses and thereby maximise audience figures in an era where the choice and location of cinematic consumption was limited.[7] Maltby's essay 'A Brief Romantic Interlude: Dick and Jane go to 3½ Seconds of the Classical Hollywood Cinema' analyses a sequence in Michael Curtiz's *Casablanca* (1942) in which the two leads share an embrace, at which point the shot dissolves into a 3½ second shot of an airport tower before returning to the couple. Maltby uses this sequence to examine the way in which, in order to play to the broadest possible audience, the film presents evidence that the characters both did (the dissolve from an embrace, the clear connotations of the airport tower, a post-act cigarette smoked by Humphrey Bogart) and did not (the unruffled bed in the room, the continuity of the conversation) have sex. For Maltby this type of unresolved ambiguity, which runs counter to classical definitions of scriptwriting as "well planned, well plotted…leaving the audience in no doubt that they have witnessed a completely unified, satisfying tale of events", enables the film to play to as broad an audience as possible, with both 'innocent' and 'sophisticated' viewers satisfied by the narrative.[8]

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[6] Slavoj Žižek, *The Art of the Ridiculous Sublime* (Seattle: Walter Chapin Simpson Centre for the Humanities, 2002), p.4.

[7] The Hays Code is the popular name, derived from that of its creator Will Hays, for the Motion Picture Production Code that set out guidelines regarding acceptable content for Hollywood productions from 1934 until its replacement with the MPAA ratings system of certification in 1968.

[8] Richard Maltby. 'A Brief Romantic Interlude', in David Bordwell and Noel Carroll eds. *Post-Theory*, (Madison: University of Wisconsin Press, 1996), p.435. The classical definitions of scriptwriting Maltby employs here are from Lewis Herman, *A Practical Manual of Screen Playwriting for Theater and Television Films* and Eugene Vale, *The Technique of Screenplay Writing* although, as he notes in p.455n5, "[t]he assertion is a commonplace of screenwriting manuals".

What is notable about Maltby's essay is that, while it convincingly examines both the scene in question and supplies substantial primary evidence in the form of conversation and interview material from the crew and studio to support a view of classical Hollywood as determinedly paradoxical, it also suggests an end-date on this model that coincides with the control-society periodisation set out in the preceding chapters of this thesis. While Maltby's assumptions about both the lack of consideration for diverse audiences in poststructuralist theoretical readings of film and the linearity of 'classical' notions of scriptwriting are overly reductive, the progression he suggests is highly instructive when thinking about the movement from disciplinary to control societies and the commercial and theoretical implications of this movement for narrative visual culture. What Maltby identifies as the narrative mode of 1940s Hollywood cinema corresponds historically and technically to the 'interpretive' or semantic mode that Jameson locates prior to the syntactic or structural approaches that move towards the subtle processes and feedback loops of the control era in placing technical function above meaning. Beyond the abstract, formal correspondence this transition is connected to the emergence of the control society at a second material level, in the movement from the cinema as an institution of narrative consumption to the perpetual modulation of home viewing, made possible by the movement from television to video to computer. As Maltby states in his essay:

> [T]he uncertainty [of its narrative structure] meant that *Casablanca* could play to both "innocent" and "sophisticated" audiences alike. The alternative, which the studios resisted staunchly until 1968, was to differentiate movies and audiences using a rating system. They resisted ratings because it would disrupt their patterns of distribution, because it would change the nature of the place that the movie theatre was – especially in small towns and suburban areas – and to a lesser extent, because it would involve admitting that some of their productions were not suitable for everyone.[9]

[9] *Ibid.*, p.443.

Connecting this to the control society periodisation set out above, the years from the production of *Casablanca* to the eventual introduction of ratings corresponds to the movement towards info-narrative that is traced by Jameson from theoretical possibility in the work of Propp and Lévi-Strauss to incomplete practical emergence in the political conspiracy thriller, and completed by Galloway in the recent plot of disingenuous informatics. The change in the commercial direction of popular cinema in this period, a movement from "suitable for everyone" to the targeted demographics that certification suggests, is a subtle but instructive change in the movement from disciplinary to control societies, and forms a crucial entry point to the idea of major cultural production in the latter.

In examining Maltby's claims about 1940s commercial filmmaking alongside the historical movement from disciplinary to control societies and their accompanying commercial narrative forms it is possible to observe the transition from a model that looks to maximise popularity by allowing a contained, countable and institutionalised audience multiple interpretations to a model concerned with the targeting of specific groups whose site of consumption is distributed rather than decentralised. To follow Deleuze's extension of Foucault into the control era, this is a movement from disciplinary power to perpetual modulation. The accompanying change in the informatic processes of commercial cinema across this transition has been noted by Wheeler Winston Dixon, who observes that while many genre films of the 1920s, 1930s and 1940s are able to both meet "unspoken requirements of audience satisfaction" and "extend beyond the boundaries circumscribed by economic concerns", similar examples from the 1990s are defined by "facelessness" and a desire to "subsume [themselves] into the larger framework of genre cinema."[10] Where Jameson and Galloway suggest the emergence of an info-narrative from the 1960s to

[10] Wheeler Winston Dixon, *Film Genre 2000*, pp.1-2.

the 21st century by each examining a specific genre that makes its processes most clearly visible (the political conspiracy thriller and the story of "disingenuous informatics" respectively), the passage from Maltby to Dixon hints at the most effective, functional and obscured level of this emergence, where the process of making coded and patterned narrative executive directly corresponds to projected profit.

There are two crucial threads that must be examined in determining the relationship between info-narrative and commerce in the contemporary major cinema. The first relates to the movement from universality to demographics, or from the disciplinary institution (the cinema) to distributed nodes (the cinema *and* the home; video, DVD and the computer). The second relates to the issue of genre, an aspect of film theory whose wide academic theorisation both exemplifies and obfuscates the informatic turn that is definitive of the control era. Where the first issue relates to the informatics of target markets and the move from the consideration of the individual to the consideration of the *dividual*, the second relates to the conversion of that information into specific cultural objects.

Demographics

As briefly discussed above, Maltby's analysis of *Casablanca* is centred on the fact that, in an era where both film distribution and the possible sites of film consumption are highly limited, the understanding of the audience as a diverse mass of demographic information necessitates the production of a general narrative form, where the broad interpretability of the text in question is central. As Maltby states, referencing Barbara Klinger:

> Hollywood has less commercial interest in producing coherent interpretations of a movie than in promoting what Barbara Klinger calls "multiple avenues of access" to

> it, so that it will "resonate as extensively as possible in the social sphere in order to maximize its audience."[11]

While Maltby's account of film narrative, which he clearly distinguishes from the "conventional assumptions" of a "Model Reader" found in "Post-Structuralist textual criticism," provides a useful materialist account of the relationships between interpretive narrative structure and commerce, it is historically precluded from addressing the changes that ever-increasing technologies of data retrieval pertaining to audience figures and responses may have on this relationship.

If *Casablanca* contains narrative paradoxes such as the did-they-didn't-they bedroom scene because of the impossibility of (1) statistically analysing the response of specific groups within the audience and (2) producing and distributing niche-targeted texts towards them, it is fair to say that a change in the possibility of these factors would bring a change in narrative process. Viewed through the historical framework of this thesis, the critical equation of this change is as follows. The Hollywood of *Casablanca* corresponds to the disciplinary institution and its key unit is the individual: individual studios, individual audience members, texts that individuate themselves within rules of production and genre. The Hollywood of the present corresponds to the perpetual modulations of the control society, can be seen emerging through key moments such as the implementation of certification and the adoption of home formats such as video and subsequently DVD and Blu-ray, and its key unit is the dividual, or the data set: the studio as network of subsidiaries and ancillary merchandise interests (videogames, toys, clothing and much more), the audience as grouped target demographs across wide diverse geographical spreads and the text as carefully-coded algorithm with enough surface distinction to make it marketable as well as accessible. This change is the source of the major theoretical

[11] Maltby, *Post-Theory*, p.436. Maltby's references are to Barbara Klinger, 'Digressions at the Cinema: Reception and Mass Culture', *Cinema Journal* vol. 28 no. 4 (Summer 1989), p.10 and p.14.

shortfall in Jonathan Beller's otherwise meticulous and forceful theorisation (or re-theorisation) of the cinematic image as the dominant form of contemporary capital in *The Cinematic Mode of Production*. After the move from disciplinary to control society is complete, the cinema is no longer the sole location for the end-user of visual narrative forms. The technologies of domestic consumption add value to commodities through logged web hits, mouse-clicks, and ever-more detailed viewing figures that can be converted into advertising revenue in a way that is both far more tangible and far more measurably effective than the 'attention economy' that Beller focuses on.[12]

The confined space of the classical cinema, based on a model where each film is calculated to draw enough consumers to fill every seat of every screening, is augmented, in the second half of the twentieth century, with the space of the home and in recent years the home computer where it is possible to constitute a profitable audience for a specific cultural object out of just a few people in each city of the world. The computer with internet access is the ideal site of media consumption for the control era because it enables both the collection of private data about viewing preferences (the creation of a data set for potential audience irrespective of geographical factors) and the private distribution and playback of the specific object that is produced as a result of this data, narrative or otherwise. It is no coincidence that the World Wide Web, VHS and DVD each benefited in their early stages from

[12] See Jonathan Beller, *The Cinematic Mode of Production: Attention Economy and the Society of the Spectacle* (Hanover: University Press of New England, 2006). The same argument about the invalidity of using the cinema as the overarching terms for the contemporary image-commodity has also been made by Steven Shaviro, who wonders "whether we haven't reached a point where (as Beller likes to say) changes in quantity have led to a change in quality, as we move from cinema (imbricated with the Fordist assembly line) to television and video, and today to computer-mediated communications and digital media of expression. I don't think we live in a cinematic age (or mode of production) any longer, but in another media regime entirely." Steven Shaviro, 'The Cinematic Mode of Production', http://www.shaviro.com/Blog/?p=561. Last accessed 19/05/09.

both the mass adoption of technical standards and the rapid endorsement of the pornography industry.[13]

Where the cinema might allow recording of the gender breakdown and the (at best) rough age group of its audience, television loses the visual identification of its audience but adds the ability to record accurate timeline data for the viewing preferences of each household hooked up to the Nielsen system or, today, using TiVo. The video or DVD rental store is able to store gender, exact age and address details as well as a comprehensive list of previous titles rented by each user. The online computer can log all of the above details, as well as additional information relating to web browsing habits, for example the amount of time a user has spent reading about or viewing information relating to a particular film without necessarily viewing it in full. With each of these developments the creation of target demographs becomes more sophisticated. A highly instructive example of the current capacity of this process in the United States is the 2006 introduction of StopWatch by the manufacturers of the TiVo digital video recorder, a technology that combines elements of television, video and computer.[14] StopWatch technically both augments and supersedes Nielsen, the predominant provider of audience ratings data, by both recording and making available *second-by-second* viewing data, including instances of pausing, rewinding and fast-forward during each programme.[15] Here it is possible

[13] In the case of VHS, it was the licensing of the format to competitors by JVC that marks the significant factor in its ultimate success over Betamax. By the release of the next comparable storage medium, the DVD, this mass standard-adoption model was fundamental practice – although the Blu-ray versus HD-DVD medium war suggests that this is not a universal rule. It is no exaggeration to state that the rapid emergence and success of the internet is entirely dependent on such shared technical standards. See Alexander R. Galloway *Protocol* pp.125-6.

[14] TiVo is a service that allows the delivery of broadcast television to a non-removable hard drive for home viewing. The British equivalent is the Sky + service.

[15] See https://stopwatch.tivo.com/home/index.html. Last accessed 19/05/09. The StopWatch service is actually exemplified by an event that both precedes and motivates its launch, the famous incident during the 2004 Super Bowl half-time show in which Janet Jackson inadvertently displayed one of her breasts, and which TiVo subsequently revealed was the most viewed, rewound and paused moment in the history of their service, causing an 180% spike in ratings. See http://edition.cnn.com/2004/TECH/ptech/02/03/television.tivo.reut/. Last accessed 19/05/09.

to grasp at the massive increase in demographic data, through which the mass field of media consumers can be cast into highly specialised sets defined by preferences and habits, which effects the movement towards modulation that characterises the control society.

A crucial development amongst many in illustrating this movement from individual to dividual in the commercial understanding of film audience is the development of the home video as a medium for the distribution and consumption of narrative film. Although video was first publicly demonstrated in 1951, the first commercial model, the Ampex Signature V, appeared in the early 1960s and the first cassette cartridge system, the 3 ¼" Sony U-Matic, around 1969, a year after Hollywood finally implemented its first ratings system.[16] In 1976 the introduction of VHS created a stable platform that would provide a technical standard for domestic feature film consumption until the format's discontinuation in 2006.[17] Alongside the abstraction of an audience of individuals into a data set of dividuals that video contributes to, it is important to note the corresponding abstraction of the film image itself that it affects, moving film physically as well as economically towards the digital.

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[16] For a thorough historical account of the impact of video on Hollywood production see Frederick Wasser, *Veni, Vidi, Video* (Austin: University of Texas Press, 2001). For an equally thorough account of the relationship between specialist production and distribution outside of the mainstream see Joan Hawkins, *Cutting Edge: Art Horror and the Horrific Avant-garde* (Minneapolis: University of Minnesota Press, 2000). While the evolution of video as a medium is by no means confined to its commercial applications, and in fact finds its very early applications in fine art, it is specifically the impact of the distribution of film consumption on its production that is of concern here. For information and theory on video as a fine art medium see, for example, A.L Rees, *A History of Experimental Film and Video* (London: BFI, 1999), Rob Perree, *Into Video Art* (Rotterdam: Con Rumore, 1988), Chris Meigh-Andrews, *A History of Video Art* (Oxford: Berg, 2006), Sean Cubitt, *Timeshift* (London: Routledge, 1990) and *Videography* (Basingstoke: Macmillan, 1993), and the essays in Michael Renov and Erika Suderburg ed. *Resolution s* (Minneapolis: Minnesota University Press. 1996). For an interesting conversation between Dara Birnbaum and Cory Arcangel on the connections between early video art and contemporary digital art practice see 'Do It 2', in the March 2009 issue of *Artforum*.

[17] It is important to note that distributed film consumption was possible in a limited way before video. Elliot Forbes places video outlets as "inevitable descendants of the mail-order film outlets that for years have collected and traded 16mm prints – prints junked by film companies, prints no longer needed by television stations, and sometimes pilfered prints." Video simply extends this possibility from a clandestine, specialist concern into a ubiquitous, commercial one. See Elliot Forbes, 'The "Lost" World', *Film Comment* 27 (July-Aug 1991), p.41.

Video is the first medium to convert light into electricity for storage, taking the physical exposure of celluloid a step closer to the general inclusion of all media, narrative or otherwise, under the technical languages of digital information technology. Sean Cubitt has noted as much, stating in the introduction to *Videography* that:

> Film is an analogue medium, providing with every frame an imitation of whatever was before the lens when the aperture was opened. But digital media, instead of storing representations, store their visual and audio information as blips of electricity…This storage by means of bits of information takes us a step away from film and towards another family of media whose core is the computer.[18]

While video consists of electrical *variations* rather than alternations of 'high' and 'low' values, and thereby represents an analogue medium, the conversion of film and the consequent production and distribution possibilities enabled by the smaller, cheaper and more portable medium nonetheless represents a significant move towards the modulation of narrative consumption in the control society. Beller has noted, in considering the impact of the move from manufacturing to informatic capitalism, that:

> ...shifts in the quantity of abstraction precipitate shifts in its qualities, for example in the sequences Colonialism, Imperialism, Globalization, or Impressionism, Cubism, Neo-Realism, Virtuality, or Cinema, Video, Computer shifts in the intensity of practices of abstraction coincide with different modes of perception.[19]

Beller's theorisation, which is largely continuous with the movement from disciplinary to control major practice that is worked through in the first part of this thesis, is focussed specifically on the image as the site of "practices of abstraction" in the current informatic era. Extending this into the realm of narrative overlaid by image that is crucial to the control-era major, it is now necessary to examine the ways in which the abstraction of an audience of individuals (for whom a narrative must leave room for interpretation) into data sets of dividuals (for whom a set of highly

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[18] Sean Cubitt, *Videography*, p.xi. Ellipses mine.
[19] Jonathan Beller, 'Numismatics of the Sensual, Calculus of the Image: the Pyrotechnics of Control', *Image & Narrative* 6 (2003), http://www.imageandnarrative.be/mediumtheory/jonathanlbeller.htm. Last accessed 20/05/09.

specialised preferences must be met) effects a change in the mode of commercial forms that are provided for them.

Genre

Much of the writing about genre that exists within film studies is concerned with the negotiation of a central problem, that of definition and taxonomy. In literary history theories of genre proceed from the classical distinction between drama and poetry through Aristotle's subdivision of the latter into tragedy and comedy in *The Poetics*, undergoing multiple degrees of increasing specification and complexity as they approach the present. With the emergence of both commercial media and critical theory as significant fields of cultural production in the twentieth century genre has become an increasingly problematic area. Bordwell identifies the source of one of the major problems of genre theory in *Making Meaning*, where he sets out a brief survey of the disparate elements that can be seen to define a particular film genre:

> Grouping by period or country (American films of the 1930s), by director or star or producer or writer or studio, by technical process (CinemaScope films), by cycle (the 'fallen women' films), by series (the 007 movies), by style (German Expressionism), by structure (narrative), by ideology (Reaganite cinema), by venue ('drive-in movies'), by purpose (home movies), by audience ('teenpix'), by subject or theme (family film, paranoid-politics movies).[20]

The first problem of genre theory, as Bordwell indicates, is that it appears impossible to define a single set of formal indicators with which to retrospectively define the process of genre identification. The second major problem of genre theory is that of distinguishing between genre as an *a priori* existing empirically 'in the world' and genre as a socially-constructed complex that only ever follows textual examples. It is immediately notable that both of these are diagnostic problems that arise from the position of an individual observer, be they audience member or critic, addressing a set

[20] David Bordwell, *Making Meaning: Inference and Rhetoric in the Interpretation of Cinema* (Cambridge: Harvard University Press, 1989), p.148.

of existing texts. In other words, the problems of genre theory are *disciplinary*. They arise from attempts to assert relationships between individuals (the viewer/critic) and institutions (the genres). In the control era of gamespace and the dividual genre must be reconsidered in terms of *targeting*, the processes through which texts are produced and targeted at defined data sets.

In *The Political Unconscious* Jameson notes that, at the time of his writing, genre criticism was "thoroughly discredited by modern literary theory and practice."[21] While this may well be the case in the instances of literature and theory, the analysis of control-era major production is more concerned with observing the relationship between data and commerce in a given cultural object. The blockbuster at the most advanced theatrical level and the 'genre piece' at the lower budget theatrical and direct-to-video levels both result from a high degree of feedback or market analysis, and it is the impact of this feedback on the resultant production of cultural objects which necessitates a rethinking of genre. Jameson goes on to note that, despite being "discredited" by literature and theory the idea of genre has "in fact always entertained a privileged relationship with historical materialism."[22] Of the breadth of approaches to the problem of genre that exist within film studies, it is the approach that attempts to define a market view of the audience, rather than the social and cultural factors that empirically contribute to genre formation 'in the world', that are productive in thinking about control-era major narrative production. This approach is summed up by Denis McQuail's argument that:

> …genre may be considered as a practical device for helping any mass medium to produce consistently and efficiently and to relate its production to the expectations of its customers. Since it is also a practical device for enabling individual media users to plan their choices, it can be considered as a mechanism for ordering the relations between the two main parties to mass communication.[23]

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[21] Fredric Jameson, *The Political Unconscious*, p.105.
[22] *Ibid.*
[23] Denis McQuail, *Mass Communication Theory: an Introduction* (London: Sage Publications, 2000), p.200.

Viewed in this way, it is a logical process from an increase in the technical possibility of recording and defining audience data sets to an algorithmic form of narrative, pejoratively described as 'generic' only when the surface distinctions fail to suggest a sufficient degree of novelty, which is given over to meeting increasingly defined preferences.

In considering the role of genre in the control era it is necessary to think not from the role of the individual critic or audience member, but from the role of the targeted demograph. In addition to this, there is a second crucial element to the control-era approach to genre that is of interest in considering the relationship between commerce and informatics; rather than denoting a category, be it either *a priori* or socially-defined, genre in the age of info-narrative becomes not only a way to match commodity to target market, but a process by which to efficiently communicate information back to this market. To take a final example from the field of existing studies, this process can be understood through John Fiske's notion that it is genre conventions themselves that enable a user to better understand future examples of that genre. As Fiske states in addressing the role of the car chase that is a near-ubiquitous presence in the contemporary action genre:

> [a] representation of a car chase only makes sense in relation to all the others we have seen – after all, we are unlikely to have experienced one in reality, and if we did, we would, according to this model, make sense of it by turning it into another text, which we would also understand intertextually, in terms of what we have seen so often on our screens. There is then a cultural knowledge of the concept 'car chase' that any one text is a prospectus for, and that it used by the viewer to decode it, and by the producer to encode it.[24]

In order to address the function of genre in the control society it is necessary to examine the parallel function whereby specific genres are both attached to a closely-defined target market and at the same time serve to strengthen the connection between target market and product through the normalisation of its processes. As I

[24] John Fiske, *Television Culture* (London: Methuen, 1987), p.115.

will discuss later, this commercial model has much in common with that of the software industry as examined by Kittler and Chun, but first it is necessary to further connect business model to the narrative mode, again using the distributed model of home viewing that is definitive of the control society.

In his exhaustive study of the relationship between Hollywood production and VCR technology *Veni, Vidi, Video* (2001), Frederick Wasser demonstrates a material connection between the changes in systems of marketing and distribution set out above and a change in the form of narrative production. Taking the Walt Disney Corporation as a case study, Wasser notes that while the early years of domestic video rental enabled the emergence of small, independent distributors supporting independent film production, the rapid development of the medium accompanied by a demonstrable lack of economic impact from piracy led to the emergence of the definitive major narrative form of the control era, the type of blockbuster that Dixon defines as "faceless" and "subsumed" into a broad "framework of genre cinema". As Wasser states:

> The independent's success built the video market. Now the explosive growth of that market was paving the way for their ultimate doom. Video wholesalers became a bottleneck. They felt their primary mission was to stock current big hits, not to provide access to the widest range of choice. They favoured films that had received big theatrical releases. The huge conglomerates used the new video money to finance big releases. Therefore, video rentals and sales served to facilitate the studio trend towards a few big blockbusters.[25]

While this analysis represents one significant area of contemporary major cultural production linked to the distribution and data collection enabled by domestic consumption, Wasser's specific focus on Hollywood production means that he does not engage with the second, more mundane narrative process that emerges alongside these new possibilities. If the emergence of the high-budget 'event' blockbuster is the spectacular, market-leading form of the contemporary major then the low-budget

[25] Wasser, *Veni, Vidi, Video*, p.12.

and/or direct-to-video genre market is the form that operates at a lower level and that makes the general economic and narrative model of the entire system more clearly visible.

As Wasser suggests, while video rental profits from the late 1980s to the present tends to follow the patterns of theatrical success, there is a "breadth versus depth" coefficient that exists in parallel, whereby distributors balance the number of copies of a particular popular title they stock ("depth of copy") with a breadth of alternative material deemed attractive to the established market of these popular titles. Wasser's note that "several market surveys have indicated that customers often leave the video store without their first choice under their arm" makes clear the ancillary profits that the genre market can hoover up.[26] What this necessitates at the production level is a body of films that bear close formal correspondence to the established popular titles of the day while costing significantly less to produce, alongside models of multiple target demographs that are as detailed as possible. While the production of similar titles in the wake of a notable hit is nothing new in the world of commercial cultural production, the progressive arrival of video, DVD and online distribution, with their ever-growing capacity to both precisely delineate target markets and provide them with product, makes a compelling technical accompaniment to the movement from the narrative of interpretation to the narrative of execution. In this movement it is possible to observe the material conditions of the theoretical process that Jameson begins to examine in the 'Magical Narratives' chapter of *The Political Unconscious*, and that forms the nascent model of algorithmic info-narrative in the control era, functioning at the level of commercial major production.

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[26] *Ibid.*, p.149. This depth of copy in video rental is supported by Linqxui Dong, Panos Kouvelis and Julie Niederhoff's 2004 research paper 'Video rental Developments and the Supply Chain: Netflix, Inc' where they state that "traditional video rental, perhaps best illustrated by the ubiquitous video store Blockbuster, Inc. (BBI), involves brick and mortar stores located in strategic locations, each staffed by about a dozen employees, carrying about 1000 titles in both VHS and DVD format." http://apps.olin.wustl.edu/workingpapers/pdf/2004-03-225.pdf. Last Accessed 21/05/09.

The result of the significant distributive and productive changes that accompany the transition to control societies is that, paradoxically, in thinking about popular genre today we are no longer faced with the traditional problems of genre theory, those of accurately delineating distinct genres or instead dismissing such a possibility in the face of their complexity and social construction. To apply the methodology set out throughout this thesis, today the question of genre becomes a question of "subtle processes and feedback loops", where working through the surface effects of distinctive genre identification in order to get at the underlying informatic processes that they both mask and contribute to becomes the essential procedure. This can be productively thought of in terms of Wark's use of 'story' to define the narrative processes of contemporary culture in gamespace. In the penultimate chapter of *Gamer Theory* Wark returns to the role of the storyline in gamespace, the socio-cultural dimension of the control society, stating that:

> [w]hether in art, theory, or in everyday life, there was nothing outside the game. The storyline...became internal to gamespace, and was now much more about legitimizing the point at which a game 'must' begin and end. The storyline became just the working out, one move at a time, of a possible line through the constraints of gamespace. In the game it was an algorithm that determined when something could end; but it was the storyline that made this end point seem natural.[27]

A crucial move in thinking about the function of genre in the commercial major of the control era is the abstraction of 'story' as a series of steps that both actualise and naturalise an algorithm. Thought of in this way, genre becomes a way of framing the algorithm as "natural", of adding a familiarity that is both tailored through demographic data to meet a specific target market and that facilitates the smooth movement through indifferent, procedural steps. In the control society 'genre' becomes little more than a facilitator for the abstract function of 'story', where information is revealed bit-by-bit with no room for interpretation.

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[27] McKenzie Wark, *Gamer Theory*, paragraph 183.

Given the presence of 'story' as the definitive algorithmic narrative mode in Wark's conceptualisation of gamespace it is essential to note that Robert McKee's 'Story Seminar', and the resultant book *Story: Substance, Structure, Style and the Principles of Screenwriting*, is emblematic of the move towards abstraction and the idea of surface distinction as talent. McKee stresses a combined approach to narrative where adherence to the rules of genre is masked through a careful deployment of apparent diversification in order to retain audience interest. The rewards for following his method are suggested to be both commercial and critical, enabling the abstraction of both economic and cultural profit from the production of major narrative. The predominance of abstracted, informatic 'story' over interpretation and difference is demonstrated by McKee in his chapter on 'Structure and Genre'. Here McKee situates a finite number of plots ('Maturation Plot', 'Testing Plot', 'Redemption Plot' and so on) that underpin the function of a broad system of relatively fluid genres.[28] In the section on 'Biography' McKee's rules of story clearly illuminate Wark's critique in *Gamer Theory*, where the latter uses the example of reality TV to demonstrate the abstraction of 'real life' into algorithmic narrative. Of the Biography genre McKee specifies that:

> This cousin to **Historical Drama** focuses on a person rather than an era. **Biography**, however, must never become a simple chronicle. That someone lived, died and did interesting things in between is of scholarly interest and no more. The biographer must interpret facts as if they were fiction, find the meaning of the subject's life, and then cast him as the protagonist of his life's genre: YOUNG MR. LINCOLN defends the innocent in a **Courtroom Drama;** GHANDI becomes the hero of a **Modern Epic;** ISADORA succumbs to a **Disillusionment Plot;** NIXON suffers in a **Punitive Plot.**[29]

While McKee regularly uses examples that predate the gamespace that Wark addresses, his approach to these examples is both historically and practically definitive of story in the control era, retrospectively decomposing complex events

[28] See Robert McKee, *Story* (London: Methuen, 1999), pp.79-99.
[29] *Ibid.*, p.84.

into objects for coding.[30] It is the abstraction of events into data and then the coding of this data into story that characterises the control-era major practice of gamespace, and genre functions in this system as a way of constituting the particular steps that will make up a given algorithm.

In McKee popular narrative construction presents an impression of uniqueness whilst applying the executive, formal system that is definitive of control or gamespace. The successful writer, according to McKee, is defined by the degree to which his or her command of narrative is able to exceed that of the audience. As he states:

> [t]he genre sophistication of filmgoers presents the writer with this critical challenge: He must not only fulfil the audience anticipations, or risk their confusion and disappointment, but he must lead their expectations to fresh, unexpected moments, or risk boring them. This two-handed trick is impossible without a knowledge of genre that surpasses the audience.[31]

Here we return to the issue of talent and technical virtuosity that is central to working through the contemporary major and its minor counterparts. The commercially successful storyteller today must possess both the technical virtuosity to "surpass the audience" through a fulfilment of their encultured expectations and the talent to create "fresh, unexpected moments", maintaining the image of possible interpretation. This is comparable to the role of high-level programming languages, software and graphical user interfaces in Kittler's critique of the contemporary computer industry; in 'The Information Bomb' Kittler talks of "an endemic computer illiteracy" that necessitates the existence of software and is central to the massive profitability of major developers such as Microsoft. For Kittler this illiteracy creates a specific hierarchy, a distinction in agency between those who are able to understand and apply programming languages and those who are not.[32] Galloway and Thacker make a

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[30] McKee opened his USC story seminar to the public in 1984.
[31] *Ibid.*, p.80.
[32] Paul Virilio and Friedrich Kittler, 'The Information Bomb', pp. 83-4.

similar point in a discussion of the "user" and the "programmer" in contemporary society, applying the former term to any "passive or 'directed' experience with technology" and the latter to any "active or 'undirected' experience."[33] These separate accounts of control-era agency are clear analogues for the roles of audience and writer in McKee's account of storytelling. Following this, it becomes clear that the minor practitioner, whether in direct relation to technology or in relation to its cultural embodiments, must find ways to 'program.' An understanding of the political significance of 'story' as exemplified by McKee, corresponding as it does to the relationship between user and technology, is essential in thinking towards a contemporary minor practice.

Later in 'The Information Bomb' Kittler returns to his critique of the digital culture industry, making a statement about the predominant business model of the computer industry from the 1980s onwards that is a functional analogue for the movement from genre to 'story' that is crucial to the commercial info-narrative of the control era:

> You sell people computers, but you tell them they are desks, or desktops, or you tell them that they are television sets, the television sets of the future. That way, you can throw a thick mist around these devices and their system-specific shortcomings, and sell many of them.[34]

Conceptually this statement is closely aligned with Chun's discussion of "benign interactions', but moves beyond theoretical user 'happiness' into the resultant, empirical field of the massive profit that can be extracted from it by corporations such as Microsoft. Extending from this, it is possible to see the same business model reflected in the movement from interpretation and the individual audience member to execution and the dividual data set in commercial narrative production. Under the conditions of control and gamespace a technical model produces stories that are

[33] Alexander R. Galloway and Eugene Thacker, *The Exploit*, p.143.
[34] Paul Virilio and Friedrich Kittler. 'The Information Bomb', p.85.

reproducible and familiar, but also easily diversifiable at the surface level. This is a development that is enabled by a complex series of technical, economic and cultural changes of which the distributive systems of home video are only one example, enabling a much broader choice of title and a distributed network for both consumption and data collection.

Having established the material-commercial principles of control-era major narrative production in this chapter, I now move onto the specific treatment of the horror genre in the same period as a focal point. The slasher, sequel and remake cycles that follow John Carpenter's *Halloween* are instructive in grasping both the function of control-era commercial practice and the prospective tactics of counter-practice, and as such this film makes an ideal lens through which to consider the emergence of a contemporary minor practice.

Chapter 7: *Halloween* and Commercial Informatics

Within the commercial narrative forms of the control society the horror genre is an extremely useful point of analysis for both major and minor practice. The distributive mode of direct-to-video release and the extraction of multiple sequels from a single object (and the remake and reboot markets that provides a clear example of this process) are doubled in the software industry, where a particular base algorithm is repurposed and resold to every home as new through the addition of more advanced overlying visuals. Each of these modes of production, as evidenced through the horror genre of the 1980s-present which constitutes the period of the developed control society, allow a clear glimpse of the commercial principles of control. It is primarily for this reason that horror forms a rich field for the examination of prospective counter-tactics. Horror is a film genre with roots in the very earliest years of cinema, in the bat-into-devil transformation of George Méliès's *Le Manoir du Diable* of 1896. For the purposes of this chapter, however, I primarily work from Carol J. Clover's definition in *Men, Women and Chainsaws*, because this is a definition that approaches horror predominantly from an early 1990s production and consumption perspective rather than a broad film-theoretical one. Clover sets her methodology out by stating that she has "been guided for the most part by video rental store categorizations, which, despite some variation from store to store, seem to capture better than any definition I know what the public senses to be 'horror'",[35] and while I retain an

[35] Carol J. Clover, *Men, Women and Chainsaws* (Princeton: Princeton University Press, 1992), p.5n5. Joan Hawkins supports Clover's approach in *Cutting Edge*, and the relationship between 'high' and 'low' cinematic culture invoked by both exemplifies the economic aim of major cultural production in light of the control-era capacity to define niche markets and provide appropriate productions for them. Hawkins appropriately cites the lack of distinction between 'high' and 'low' in mail order video catalogues as supporting Jameson's proposition, made in *Signatures of the Visible*, that it is essential to "read high and mass culture as objectively related and dialectically interdependent phenomena, as twin and inseparable forms of the fission of aesthetic production under capitalism." Fredric Jameson, *Signatures of the Visible* (New York, London: Routledge, 1992), p.14, cited in Hawkins, *Cutting Edge* p.8.

interest in the history and theory of the genre it is its recent industrial treatment that is of primary concern here. It is not the case that the horror genre is itself minor, but that the commercial function of the genre from the late 1970s-present exemplifies the major productive, distributive and narrative paradigms of the control era whilst also exhibiting aspects of minority, a combination which is instructive in thinking towards the minor that exists within the major in the contemporary era.

This chapter will use John Carpenter's *Halloween* in two ways. Firstly, its cultural-economic impact is used to demonstrate the sequel, direct-to-video and remake modulations of control-era commercial processes. Secondly, its content is used to examine the possible function of informatic disruption within the contemporary commercial major. Released in 1978, ten years after the adoption of certification by the MPAA and two years after the emergence of the VHS format, *Halloween* is an example of the profitability of the horror genre, the principle qualifier of the contemporary major cultural object. To date the film has made a theatrical return of more than $47 million on its original $325,000 budget, boosted by an additional $18,500,000 in its first year of VHS rental and ongoing video and DVD sales.[36] It remains one of the highest-grossing independent films of all time,[37] although ironically it is the adoption of distributed production models by major studios, as a direct result of the profitability of niche-marketed, low-budget genres such as the slasher film that follow directly from *Halloween*, that makes the question of independence in film production a problematic notion today.[38]

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[36] Figures from http://www.imdb.com/title/tt0077651/business. Last accessed 16.04/2008.

[37] See Vera Dika, *Games of Terror* (Rutherford: Associated University Press, 1990), p.30. The film that holds top spot in this category is also a horror film, *The Blair Witch Project* directed by Daniel Myrick and Eduardo Sánchez.

[38] As Wasser has noted when discussing the decline of independent studios after their initial boost by the possibility of video distribution, '[today] practically all...operations we think of as independent, such as Miramax or October, are parts of larger studios. They may be operationally independent, but ultimately allocative resources reside in the larger studio. Their autonomy in operational matters is tentative. At any moment, those who control the company may reallocate their resources.' Frederick Wasser, *Veni, Vidi, Video*, p.16.

There are two crucial elements that must be addressed when thinking about *Halloween* as a model for control-era commercial practice. The first relates to the abstraction of its narrative algorithm to form the basis of the 1980s slasher genre that is emblematic of the demographically targeted, distributed and often direct-to-video-or-DVD mode of production. The second relates to the way it has become subject to the sequel and remake markets that are equally emblematic of the digitally-inflected commercial model, whereby the informatic content of a story is abstracted, coded, noise-reduced and repurposed through the addition of novel features (sequels) and a higher-quality visual dimension (remakes). It is essential to note that the slasher, the sequel and the remake are by no means novel modes of cinematic production in the control society; it is, however, the changes to their function and frequency after the movement from disciplinary to control eras that is of specific interest here. *Halloween*, standing at the beginning of the developed control-era with its specific modes of commercial narrative production, has been used as a base algorithm for each of the productive-narrative processes set out above, and as such makes an ideal point from which to determine their function.

Slashers, sequels and remakes

The slasher genre, while having well-examined roots in Alfred Hitchcock's *Psycho* and the Italian *giallo* films of the 1960s and finding a developed pre-*Halloween* form in Bob Clark's 1974 *Black Christmas*, emerges as a reproducible narrative model directly from the success of *Halloween* to represent one of the emblematic genres of the 1980s video market and of the subsequent sequel and remake processes that extend into the 1990s and 2000s.[39] Despite the multiple precursors to its form and

[39] For a historical account of *Psycho* at the originating point of the 'shocker' market in which the slasher takes a central position see William Schoell, *Stay out of the Shower* (London: Robinson Publishing, 1988). For an account of the *giallo* genre from its roots in the early 1960s to its period of

content *Halloween* is the film that supplies the narrative and commercial algorithms for the slasher film.[40] While this is primarily motivated by its profitability, it is the modularity of its informatic narrative that marks the significant difference between the slasher form and older attempts to cash in on successful cultural objects in the history of commercial cinema. Following the narrative models set out by *Halloween* and Sean Cunningham's *Friday the 13th* two years later the slasher is the most procedural of commercial genres, progressing through individual murder scenes to the battle between 'final girl' and killer in a transparent manifestation of the "series of steps" that constitute story in Wark's critique of gamespace.[41]

Where the western genre is predominantly determined by setting, and the romantic comedy and crime genres by a particular plot event ('boy meets girl' and the crime in question respectively), the slasher genre is overridingly determined by a particular, procedural narrative arc – from victim to victim to 'final girl' – into which the specific killer (often distinguished by a novel mask or other disguise), death scenes and locale can be inserted to produce an appearance of diversity. The slasher genre is of particular interest in thinking about commercial major practice because, as Jeffrey Sconce has noted, the relative transparency of its algorithmic narrative has proven no impediment to its commercial success.[42] The genre simply would not be so deep with

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widespread production in the 1970s see Michael J. Koven, *La Dolce Morte: Vernacular Cinema and the Italian Giallo Film* (Lanham: Scarecrow Press, 2006).

[40] In contrast to the relatively slasher-free four years between *Black Christmas* and *Halloween*, in the same period following the release of *Halloween* a large number of films following the same story algorithm were produced, including *Friday the 13th, New Year's Evil, Maniac, Prom Night* (1980), *The Burning*, *My Bloody Valentine, The Prowler* and *Happy Birthday to Me* (1981), amongst many others.

[41] The establishment of the term 'final girl' as a generic component of the slasher is due to Clover's analysis, where, although noting a rudimentary precursor in *Psycho* where Marion's sister Lila sneaks around the motel, encountering first Mrs Bates' corpse and then a dress-wearing, knife-wielding Norman before being rescued, she traces the archetype to Tobe Hooper's 1974 *The Texas Chainsaw Massacre*. Clover attributes the insufficient 'final girl' status of Lila to her marginal role in the body of the film, defining the 'final girl' proper as "the one who encounters the mutilated bodies of her friends and perceives the full extent of the preceding horror and of her own peril; who is chased, cornered, wounded; whom we see scream, stagger, fall, rise and scream again...She alone looks terror in the face, but she alone finds the strength either to stay alive (ending A) or kill him herself (ending B)." Clover, *Men, Women and Chainsaws*, p. 35.

[42] Jeffrey Sconce, 'Spectacles of Death', in Jim Collins, Hilary Radner and Ava Preacher Collins ed. *Film Theory Goes to the Movies* (London: Routledge, 1993), p.104.

titles if they were not producing substantial returns from their target demograph without needing to implement any real diversity of narrative. While the returns of the individual films may not be anywhere near those of the showpiece blockbusters across the same period, it is the cumulative profits afforded by closely delineated target demographs and distributed consumption that constitutes an overall profitability. The full importance of the slasher genre in thinking about commercial cultural practice in the control era is in the way it allows for an examination of the role of algorithmic narrative at its most basic level; scaling up the sophistication of these processes the same economic model can be seen progressing into subtler forms, masked with bigger budgets, higher quality acting and images and sophisticated visual effects, in the major theatrical releases that correspond to the recent control era. In the same way that the slasher narrative effectively moves from kill to kill, an emblematic control-era blockbuster like James Cameron's *Terminator 2* (1991) consists of an algorithmic story that passes from special effects sequence to special effects sequence. The efficiency with which these sequences are tied together with aspects of demographic-targeting dialogue scenes, exposition and character development strengthens the role of surface-level visual and narrative diversity above underlying abstracted story, in the control-era major. The non-essential nature of these sequences to the overall narrative object is evidenced by the nature of the material excluded in the final cut in order to retain pace.[43] Because it lacks the visual spectacle and focus-grouped dialogue and exposition of the blockbuster, the slasher

[43] Almost all of the deleted scenes from *Terminator 2* concern character development, a notable example concerning the explanation of the T-101 Terminator's ability to learn. In the theatrical cut this is explained through a single line of dialogue in which the cyborg details its neural net processor, while the lengthy cut scene involves the film's protagonist John Connor and his mother Sarah deactivating the cyborg, removing its processor and switching it to a setting that allows it to learn; this marks a crucial point in both the growing assertiveness of the hero (a future military leader yet to evidence any of the necessary traits of his future achievements) as he prevents Sarah from destroying the processor and the development of the mother's attitude towards machines from techno-phobic to techno-neutral.

story abstracted from *Halloween* evidences the cheaper, less complex and hence more transparent model of the same process.

This is not to say that the economic model is causal, emerging from *Halloween*, proceeding through the 1980s slasher market and emerging in the blockbuster, but rather that the small-niche-targeted, lower budget examples offer a relatively transparent view of the cultural logic that supports both modes. It is significant that in the UK classification system *Terminator 2* received a '15' rating where its predecessor was given an '18', indicating a revised target audience, and hence revised narrative and content in line with the larger budget ($100 million versus the first film's $6.4 million). This reduced certification for the sequel is met through reduced violence,[44] the reprogramming of the now highly marketable Arnold Schwarzenegger as a hero[45] and the addition of numerous 'child-friendly' dialogue scenes between the teenaged John Connor and the now 'heroic' Terminator. Many of the same procedures can be seen in the rebooting of *Halloween* in 1998, which I will discuss later.[46]

I have already noted that *Halloween* cannot be the originating point of the slasher in the archaeological sense because so many of the key components of the genre can be found in much earlier films; what is significant about it is the fact that it provides the narrative model for intensive production within theatrical and direct-to-video markets in the 1980s and 1990s. The reason this is of importance in analysing the commercial aspects of control era major practice is that the significant distinction

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[44] This is more a reduced representation of violence than a reduction of the amount of violent events; where the first film depicted several brutal acts in close detail, in the sequel the T-101 cyborg is commended early in the sequel not to kill anybody, while the actions of the more advanced, antagonistic cyborg T-1000 are for the most part implied rather than directly shown.

[45] In itself this interchangeability of what is essentially the same character between villain and hero has a clear resonance with Jameson's comments in the 'Totality as Conspiracy' section of The *Geopolitical Aesthetic*. See Chapter 1 note 53 of this thesis.

[46] David Foster Wallace has written satirically on the relationship between market interests and narrative in *Terminator 2* in his essay 'F/X Porn', in *W Magazine* Volume 12 (Winter/Spring 1998), pp.36-46.

between the film and its predecessors is *informatic*. Sconce asserts, in addressing the damning critical response to slasher films in their commercial heyday, that if they were "so bad (as in poorly made)" then they would not be profitable, before going on to dismiss the common critical assertion that their success can be attributed to the interchangeability of the killers as symbols for "adult authority" or other social factors as "specious."[47] Sconce's dismissal of the location of "symbols" within the slasher cinema is indicative of a break not only from older modes of analysis but also older modes of production in the movement from disciplinary to control societies. At the narrative level it is not a question of slasher films being badly made, regardless of their production values, but rather of being well enough made to correspond to a mode of production that privileges the targeting and distribution of specific components over symbolism, interpretation and novelty in a way that is radically different from that of earlier years of the cinema.[48]

One clear site of the informatic difference between the control-era major form of the slasher and older disciplinary forms is the role of the antagonist, the body doing the slashing; unlike Norman Bates in *Psycho* or the mysterious killers in the *giallo* films and *Black Christmas* whose identities are masked with red herrings and withheld until the final moments in order to add a mystery element to the plot, in *Halloween* the killer Michael Myers is less a character than a nonhuman structural element. While he has a back-story in which he kills his sister fifteen years before the main action, this is attributed no motivation, and he does not issue a single word or

[47] Sconce, 'Spectacles of Death', p.104.
[48] For an account of the relationship between critical reception and commercial success in contemporary cinema see Suman Basuroy, Subimal Chatterjee and S. Abraham Ravid, 'How Critical are Critical Reviews? The Box Office Effects of Film Critics, Star power, and Budgets', in *The Journal of Marketing* vol. 67 no. 4 (2003). Basuroy, Chatterjee and Ravid's research suggests that there is a gradual decrease over time of poor critical response on a film; although their focus is exclusively on the theatrical release market, their findings support the distributed economy of the direct-to-video film as accumulating through specific, geographically dispersed target markets in contrast to the mass, immediate impact sought by the classical Hollywood cinema and the event Blockbuster today. Furthermore, their research indicates that positive reviews do not guarantee box-office success, suggesting that the critical signifiers of quality do not correspond to audience experience.

demonstrate a single behavioural trait within the film that would define him as a psychologically-realised character. To underline this formal function, in the script and credits to the film he is not referred to by name but as 'The Shape.' In the story algorithm that is abstracted to form the slasher narrative he is little more that the executor of the plot, the movement from kill to kill that defines the procedural story.

But this does not really describe *Halloween* itself, only the story that is abstracted from it to be reproduced in the multiple slashers that follow it success. It is essential to note that the path from *Halloween* to the mass-production of slasher films in the 1980s is actually intermediated by *Friday the 13th*, a film that abstracts the 'story' of Carpenter's film by adding both a larger number of death scenes and a layer of motivation to the killer's actions, extending the kill-to-kill algorithmic narrative whilst to some degree hiding its purely formal functionality behind rudimentary exposition. The majority of the subsequent entries to the genre more closely follow *this* model rather than the exact one set out by Carpenter, and this is why *Halloween* ultimately functions as a site of prospective minor tactics more than it does a developed major form. This is an aspect of the film that I will return to, but it is of specific interest here in foregrounding the ways in which it has been perceived commercially necessary to overlay its basic algorithm with tenuous motivations throughout the slashers, sequels and remakes that follow it. In the same way that Microsoft, to take Kittler's point of critique, overlays its commercial algorithms with more and more non-essential interface distinction from the command line to the GUI, the narrative algorithm of *Halloween*, proven to be profitable by box office and rental returns from 1978 to 1983, is overlaid with exposition and visuals that are not essential to its core function – again, as proven by the original's success – to form an entire genre defined by procedurality over any other signifier.

Beyond the abstraction of a single narrative algorithm that defines it as a genre, the slasher film is subject to the second, similar process of extensive sequel and remake production in the period 1980-present that corresponds to the developed control era. Put simply, this aspect of the genre is essential to the examination of commercial major practice in the control era because it presents the abstraction of an abstraction. I do not argue that the act of producing sequels and remakes in itself is specifically definitive of contemporary major practice, nor is it my intention here to provide an extensive examination of the sequel and the remake generally, because both occur in various forms throughout the history of commercial film.[49] Equally, I am not interested here in the type of 'high' remake that effects a transposition of themes across distinct socio-historical periods as in the case of Howard Hawks/Christian Nyby's *The Thing From Another World* (addressing McCarthyism in 1951) and John Carpenter's *The Thing* (addressing AIDS in1982), nor the equivalent 'high' sequel form of which Francis Ford Coppola's *Godfather* trilogy is amongst the most notable examples.[50] Both of these forms of remake or sequel fall into the interpretive narrative mode that defines the pre-control period. Instead it is the specific formal effects that result from the placement of slasher sequels and remakes within the cultural marketplace that are of critical interest here. The films that result from these processes offer a clear view of the control-era narrative object's technical function; in the slasher sequels and remakes, whose original forms already depend on an

[49] For work on the historical, cultural and theoretical aspects of the film remake see the essays in Andrew Horton and Stuart McDougal eds., *Play it Again Sam: Retakes on Remakes* (Berkley: University of California Press, 1998) and Jennifer Forrest and Leonard R. Koos eds., *Dead Ringers: the Remake in Theory and Practice* (New York: SUNY Press, 2001).

[50] The control-era manifestation of this category of sequel series, characterised by literary source material and/or a common director across films, belongs to a separate, more sophisticated and thus less clearly identifiable category that, while wholly valuable in terms of examination, is passed over here in favour of the more transparent model offered by the slasher. Obvious additions to the 'high' category of sequel series include Peter Jackson's adaptations of the *Lord of the Rings* novels (*the Fellowship of the Ring,* 2001, *The Two Towers,* 2002 and *The Return of the King,* 2003) and Andy and Larry Wachowski's Matrix trilogy (*The Matrix,* 1999, *The Matrix Reloaded,* 2003 and *The Matrix Revolutions,* 2003). The *Star Wars* and *Indiana Jones* series can be seen as the originating point of this mode, and have both been augmented with recent additions.

algorithmic story abstracted from *Halloween*, the modular logic of adding aesthetic and expository elements to the same informatic form is laid bare.

To look at only three of the most notable slasher series of the 1980s and 1990s, *Halloween, Friday the 13th* and *A Nightmare on Elm Street* have produced seven, eleven and seven sequels respectively, and all three have either been remade or have remakes forthcoming.[51] For consistency with the preceding and following sections, analysis will be confined to the examples that relate directly to *Halloween,* since, at the connected levels of info-narrative and image, each of the crucial processes is covered by the sequels and remakes that follow John Carpenter's 1978 film. If Carpenter's *Halloween* provides the story algorithm and the evidence of profitability, and *Friday the 13th* abstracts this story into its ongoing market form by adding more interchangeable characters and hence more murder scenes as well as a degree of exposition regarding the killer's motives, then the sequels to *Halloween* apply these secondary processes to the original film. *Halloween 2*, released a year after the success of *Friday the 13th*, directly follows the events of the first film. Laurie Strode, the 'final girl' of the original, continues to be pursued by Michael Myers. The first notable difference between the films is the number of murders; in *Halloween* there are four such scenes (not counting one that occurs off-screen), whereas in *Halloween 2* this count is trebled – a process that continues in the successive sequels. The second notable difference concerns exposition: whereas in *Halloween* the killer has no defined motivation, in the sequel Laurie Strode is retconned into being his sister – again, a process that is expanded through the discovery of further family members in the subsequent sequels. What is evidenced here is the surface diversification of a stable underlying form, with little of the interest in overall series continuity that is

[51] The remake of *Halloween*, directed by Rob Zombie, was released in October 2007, with a sequel due in 2009. The remake of *Friday the 13th* was released in February 2009, and the remake of *A Nightmare on Elm Street* has its theatrical release set for April 2010.

characteristic of the disciplinary sequel form of which the *Godfather* trilogy is definitive. A relatively small, niche-marketed example is expressly useful here because the niche market is a crucial manifestation of the control concern with dividuals or data sets; from an apparently modest position the slasher sequel market perfectly demonstrates the informatic function of major commercial narrative in the control era.

After the series of *Halloween* sequels reaches number 6 (1995), a film that arrives at a limit of abstraction in attempting a fully developed supernatural explanation of the killer's properties and motives, the franchise undergoes two further emblematic control-era major processes; the 'reboot' and the remake. *Halloween H20* (1998) reboots the series by ignoring sequels 4, 5 and 6 and returning to the original film's central character and final girl Laurie Strode. Compared to its preceding sequels, the film features higher production values, a demographically-targeted cast drawn from teen movies (Josh Hartnett), TV (Michelle Williams) and music (L.L. Cool J) and a widespread theatrical release, while retaining the algorithmic, kill-to-kill story of the slasher genre. *Halloween H20* grossed $73 million worldwide, and led to a sequel (*Halloween: Resurrection*, 2002) that attempted to abstract *this* formula. The relative commercial failure of this reboot-sequel led to the production of a remake of *Halloween* in 2007, a film that proposes full and psychologically-realistic motivations for the killer rooted in a socially deprived background; this is a quite obvious transposition of director Rob Zombie's interests, expressed in his *House of 100 Corpses* (2003) and *The Devil's Rejects* (2005) onto the *Halloween* story, exemplifying both the modularity of the original film's informatic narrative and the desire to augment it with additional but non-essential elements – both narrative and aesthetic – for commercial purposes.

It is a telling demonstration of control-era cultural production that the intermediation of this sequel>reboot>remake process by Wes Craven's *Scream* (1996), a film which self-reflexively foregrounds the procedural slasher narrative whilst also employing it, does not detract from the commercial functionality of the genre but actually reinforces it. In *The Geopolitical Aesthetic* Jameson points out that the acknowledgement of a conspiracy in the 1970s films he examines does not expose the world system but rather strengthens it by falsely suggesting that wrongdoing can be traced to a single villain rather than a totality. In a similar way, the acknowledgement of the procedurality of the slasher by *Scream* does not detract from the commercial major function of info-narrative, but instead strengthens it by placing it front and centre, demonstrating the lack of impact that the decline of classical narrative form has on commercial success in the control era.[52] If anything, *Scream* has invigorated the market function of the slasher, evidenced by the large number of remakes that have emerged since the early 2000s, each adding a higher-quality image and more closely targeted cast members to the basic underlying algorithm. Since the 2003 success of Marcus Nispel's *Texas Chainsaw Massacre* remake, the same treatment has been given to a multiple slashers ranging from the iconic (*Halloween, Friday the 13th, A Nightmare on Elm Street*) to the marginal (*When a Stranger Calls* [1979, 2006], *Prom Night* [1980, 2008], *My Bloody Valentine* [1981, 2009], *The House on Sorority Row* [1983, 2009]). Despite the multiple processes of abstraction effected on it, what remains notable about *Halloween* from the perspective of an informatic minor practice is the way in which each of the slashers, sequels and remakes that follow it grapple with the problem of inserting information into the nonexistent space occupied by the killer. That John Carpenter's original film both produces 90% of the narrative algorithm for an emblematic control-era narrative form

[52] See Jameson, *The Geopolitical Aesthetic*, p.56.

and contains within it 10% of noise or nonexistence that the works that follow it all strive to eliminate makes it a highly instructive model in thinking about contemporary minor practice that must necessarily occur within its corresponding major form.

Halloween and minor informatics

The reason *Halloween* provides such a crucial focus for this analysis is that in addition to providing the informatic structure that is abstracted into the slasher genre, it also contains, in the body of the killer, a point of informatic nonexistence that allows the overall work to furnish a prospective model for contemporary minor tactics. The *Halloween* sequel and remake series, like *Friday the 13th*, strive to add surface-level exposition and novelty to the algorithm abstracted from the original in order to resolve the point of informatic nonexistence that is at work within it. The function of the sequels, reboots and remakes, along with the predominantly psychoanalytical critical responses attached to it, is to place the narrative of the overarching film series in a state of ultimate decidability that is denied by the original film's content.

The significant aspects of this noise (or nonexistence) in *Halloween* can be articulated through an examination of the film alongside two of its primary intertexts, Hitchcock's *Psycho* and Dario Argento's *Suspiria* (1977). These films, both acknowledged influences on *Halloween*, present modes of narration and noise that specifically relate to the analogue or the disciplinary and as such act to foreground the faulty or incomplete informatics that distinguish Carpenter's film from both its precedents and its antecedents.[53] This informatic distinction between *Halloween* and

[53] Carpenter has described *Psycho* as the "granddaddy" of the *Halloween*- type slasher, and the influence is hard to miss, from the camerawork (especially the use of subjective point-of-view, which is employed throughout *Halloween*) to the basic premise of the disguised, knife-wielding killer to character names (Sam Loomis) and the casting of Jamie Lee Curtis, daughter of *Psycho's* Janet Leigh. See Andrew Abbott (dir.) *Halloween: the Night He Came Home* (1999), an interview with John Carpenter on *Halloween* by Mark Kermode. Of *Suspiria* Carpenter has explicitly stated the connection

Psycho relates to issues of motivation and exposition, and are clearly illustrated by a comparison of the crucial images that provide the climactic point on the narrative arc of the respective films. In Psycho the final scenes introduce a continuity of exposition placing a psychologically (or psychoanalytically) derived rationalisation at the source of Norman Bates' murders.

Alfred Hitchcock, *Psycho* (1960)

between the narrative disorder Argento creates and the initial premise of *Halloween*: "[*Suspiria*] really made no sense in some ways, but it was stylistically beautiful," says Carpenter. "Because it was so much fun to be scared in that film, that was a real inspiration to us." 'Halloween: Escape from Haddonfield', http://www.angelfire.com/il/haddonfield/. Last accessed 6/06/09.

John Carpenter, *Halloween* (1978)

In *Halloween* the final revelation is an empty space where the killer's body should lay after being shot and falling from a window. Carpenter is very clear on the fact that at the time of *Halloween's* production this ending was not a setup for a sequel; given the absence of diegetically provided information, be it concerning Michael Myers's supernatural properties or otherwise, it is the only possible ending.[54] The missing data in terms of supplied motivation and exposition concerning Michael Myers leads to an ending that foregrounds the undefinability at the core of the film's informatic form, an ending that is gradually retconned into a definable state through sequels, remakes and critical evaluations. Considered informatically, in *Halloween* the killer is the body from which information cannot be extracted, and this is a central component of its narrative when thinking about contemporary minor practice. To extend this reading, Michael Myers is indestructible at the climax not because of any *established* supernatural property, although the presence of some nonhuman attribute is hinted at by the psychiatrist Dr. Loomis's repeated but vague references to 'evil', but because

[54] See Abbott , *Halloween: The Night He Came Home*. In this interview Carpenter compares the ending of *Halloween* to that of Irving S. Yeaworth's *The Blob* (1958), in which the alien of the film's title is frozen and dropped in the arctic at which point a question mark emerges from the shot and the credits roll. The significant distinction is in the exposition that leads up to the endings of the respective films; where *The Blob* establishes the creature as an alien and hence possessed of justifiably unknown properties, Michael Myers in *Halloween* receives no such justification.

there is no final, definable state into which the killer is cast. Instead, he is indestructible because, like the noise within a digital media file or the virus within the source code of a computer program, he is as much part of the form as he is part of its diegesis. The shots that close the film, following the above image, are a succession of cuts to the main locations of the film, each using the Panaglide camera (an early precursor to Steadicam) that portrays the killer's point-of-view throughout the film and accompanied by the sound of Myers's distinctive laboured breathing. Despite the implications of this type of shot as being attached to a single character, the frequency of cutting between different locations suggests that, like the classical 'omniscient' camera, he's not only gone from where he fell but is at the same time "everywhere" within the diegesis.[55] It is this noise of nonexistence within the otherwise algorithmic story, as opposed to the definability and classical motivation that concludes *Psycho*, which marks the significant periodised difference between the two films, as set out in the following table:

Film	Antagonist	Motivation	Resolution of antagonist	Period
Psycho	Norman Bates	Oedipus complex	Arrested and psychoanalysed	Disciplinary
Halloween	Michael Myers			Control

This point of comparison with *Psycho* illustrates the way *Halloween* is informatically distinct from its classical major precursors. A similar comparison with Dario Argento's *Suspiria* can be used to enact the same process on the specific way in which this difference is executed; since it is clear that *Halloween* is not unique in opposing narrative continuity in itself, it becomes useful to contrast it to a film that influences it, but that articulates its counter-practice through excess, entropy and

[55] *Ibid.* For a discussion of the 'omniscient' camera in film see Stanley Cavell, *The World Viewed* (Harvard: Harvard University Press, 1979). For a discussion of the relationship between classical film construction and the subjective point-of-view see Paul Willemen, 'The Fourth Look', in *Readings and Writings*.

disorder rather than missing information. In *Suspiria* the deterritorialising force that minor effects on major is entropic, spilling out into both diegetic (visual, narrative) and extradiegetic (sound, colour treatment) aspects of the production. In Argento's film the diegetic world of the film becomes spatially disordered and saturated with unnatural colour, while the dissonant soundtrack often renders the diegetic dialogue inaudible. Each of these disordered elements grows as the coven of witches that provides the crucial antagonists spreads in influence. Throughout this process, the film retains a fragile relationship with intelligible storytelling through an arbitrary series of folktale archetypes, as Linda Schulte-Sasse observes:

> Argento has no interest in realism whatsoever; *Suspiria* is self-consciously stylised, artificial and, as the first victim will remark in a kind of meta-commentary, 'so absurd, so fantastic.' The characters are not psychologically developed, but correspond with folkloric type: a protagonist on a quest by which she will lose her innocence; helper figures who show the way; and a malevolent maternal trio composed of dance instructor Miss Tanner (Alida Valli), administrator Madame Blanc (Joan Bennett), the whiteness of whose name stands in ironic contrast to the 'Black Queen' of witchcraft, Helene Marcos, a 19th-century Greek immigrant and now the school's elusive 'Headmistress.'[56]

Where *Halloween* presents a narrative form that is for the most part continuous and commercially reproducible, with only a single if critical point of noise in the body of the killer, *Suspiria* attributes to its antagonists the effect of wreaking visual, aural and narrative disorder throughout the basic narrative form. By way of counterpoint, it is demonstrated in *Suspiria* that this artificiality is not ubiquitous but a rather a function of the witches' presence through the conventionality of the opening airport scene, which features a narrative and temporality-consolidating voiceover, continuity editing and naturalistic lighting and composition. A series of tight shots of the automatic door mechanism marks the transition from the world of classical style to the disordered one of this particular film, implying both the mechanical violence of the film and,

[56] Linda Schulte-Sasse, 'The "Mother" of all Horror Movies: Dario Argento's *Suspiria*', *Kino Eye* vol. 2 Issue 11 (June 2002), http://www.kinoeye.org/02/11/schultesasse11.php. Last accessed 09/06/09.

through the presence of sparks in the mechanism, the functioning of unseen forces that are present in its world.

Both *Suspiria* and *Halloween* attribute their disorder to the function of a specific antagonist, but the significant difference between the films is that the former presents a counter-form through spectacular entropy, while the latter does so through the non-spectacular, unclassifiable state of its antagonist. In *Suspiria* the central witch is, until the final moments, absent or invisible from the frame; in place of her direct representation, her presence is felt through the excesses of image and sound that affect both diegetic and extradiegetic components of the film as discussed above. In Halloween, by contrast, the antagonist is in plain view of the camera on a number of occasions, yet communicates no information – let alone an entropic quantity – that could be used to classify his actions (for example madness or demonic possession). Within *Halloween* the body of Michael Myers manifests the key properties of informatic nonexistence set out by Galloway and Thacker; he is not characterised by "absence, lack, invisibility [or] nonbeing", but rather he "permeates" the diegesis of the film while being impossible to "cast into any data set" or parse "with any available algorithm."[57] Equally, his placement within the film resonates, especially in contrast to Suspiria, with Lovink and Schneider's comment, made in 'Notes on the State of Networking', that one of the crucial distinctions between the cultural objects of 'Info-Empire' and those that went before is that there is "nothing spectacular" about the former.[58] These crucial distinctions – spectacle versus mundanity, entropy versus noise and absence versus nonexistence – articulate together the difference

[57] Alexander R. Galloway and Eugene Thacker, *The Exploit*, pp.136-137.
[58] Geert Lovink and Florian Schneider, 'Notes on the State of Networking.' In his discussion of *Halloween* Schoell criticises the film for its lack of development in terms of "character, story line and even suspense", stating that it "just sits there when it should be doing something." Despite their intent as criticisms, these comments perfectly encapsulate the significant distinction between *Halloween* and the narrative modes of its predecessors. See Schoell, *Stay out of the Shower*, p.133.

between disciplinary and control-era minor practice as illustrated in the following table:

Film	Form of counter-practice	Mode of counter-practice	Classification of antagonist	Period
Suspiria	Entropy	Visual, Aural, Narrative	Witch	Disciplinary
Halloween	Nonexistence	Informatic		Control

The informatic properties of *Halloween* are illuminating in terms of the interrelated commercial and narrative concerns of control-era major practice and the prospective counter-tactics of minority. There is a pair of key issues that now emerge around the idea of spectacle and its situation within contemporary major and minor forms. The first can be witnessed in the relationship between *Halloween,* the films that influence it and the films that it influences, and is concerned with the possibility of implementing the nonspectacular and the indifferent within the informatic form of the contemporary major object in order to counter it. The second relates to visuality, and is concerned with the idea that it is quantity of information that distinguishes the major and minor image in the control era. The following chapters address the ways in which the minor dimensions of these issues are suggested in some examples from the commercial realm of film, television and video from 1990 to the present. Chapter 8 examines David Lynch and Mark Frost's television series *Twin Peaks* and way in which it constitutes a significant break in Lynch's body of work along the disciplinary/control divide set out throughout this thesis, while Chapter 9 elaborates on the same themes through the film, television and video of Takashi Miike. These chapters are not concerned with attempting to place Lynch and Miike in the role of definitive minor practitioners, but rather with the examination of a pair of related

questions through their work, questions that ultimately point towards tactics of minority:

1] What possibilities exist for the implementation of indifference, noise and nonexistence within the contemporary commercial major that is primarily concerned with generating user satisfaction and hence profit from underlying informatic modes?

2] How can reduced image quality be deployed to constitute a minor visuality that does not preclude the possibility of existence within its major counterpart?

These questions, which emerge through the examination of *Halloween* and the commercial and formal concepts that surround it, provide a framework for extending the control-era minor properties, which are theoretically established in Chapter 2 and traced in nascent form through Beckett's work in Chapters 4 and 5, into the ongoing period of the developed control society. Given the definitive commercial dimension of the contemporary major set out in chapters 6 and 7, which posits profitability as a condition of majority alongside the formal properties established in Chapter 1, a third question emerges which will be crucial to the analysis of minority in the remaining chapters of this thesis:

3] How can the abstracting properties of commercial major practice be themselves abstracted in service of a minor counter-practice?

Chapter 8: Commerce and Noise in *Twin Peaks*

The television series *Twin Peaks*, created in 1990 by David Lynch and Mark Frost, articulates a pair of oppositions that are crucial to the consideration of control-era major and minor practice.

- It is a commercially successful series for television, amongst the earliest and most pervasive examples of the distributed commercial logic of control, co-created by a director known for output that is deeply entrenched in the work of historical auteurs of the cinema that correspond to the preceding disciplinary era.[59]
- It is both a detective series (a genre characterised by its ending and corresponding to the disciplinary period) and a soap opera (a genre characterised by its interminability and corresponding to the control period).

These oppositions are both historical and formal. In terms of the technical and narrative model it sets out, the series engages with both emblematic disciplinary (film, detective story) and emblematic control (television, soap opera) practices. Through the two oppositions set out above, the series engages with each of the three questions proposed at the end of the preceding chapter: the relationship between the necessary commercial function of a major cultural object and the possibility a minor form functioning within it, the relationship between image quality and minor practice and the prospect of abstracting minor tactics directly from the abstractions of major ones. This chapter will examine *Twin Peaks* through this complex of issues, focussing on the ways in which its role as a site of prospective minor tactics results not from the

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[59] See Michel Chion, *David Lynch* (London: British Film Institute, 1995), pp.24-29, for an account of Lynch's avowed influences, including Federico Fellini, Stanley Kubrick, Ingmar Bergman, Jacques Tati and Alfred Hitchcock. Chion is careful to note Lynch's claimed lack of connection with surrealism, despite the regular critical connections made between the movement and his work.

intentions of its director-co-creator but rather from the instability and tension between these intentions and the series' commercial and narrative constraints. Following this, the chapter moves on to engage with the ways in which these instabilities and tensions are both illuminated by and proceed through Lynch's subsequent work – specifically his film prequel *Twin Peaks: Fire Walk with Me* and his 2006 work *Inland Empire.*

Richard Dienst's discussion of *Twin Peaks* in his 1994 book *Still Life in Real Time* provides an essential theoretical backdrop to this chapter. In a similar vein to Beller's recent work, Dienst uses television to engage with the political and theoretical economies of the late-twentieth century as markedly distinct from those of preceding eras – essentially although never explicitly supporting the disciplinary/control distinction made throughout this thesis. His chapter on *Twin Peaks* considers the impact (or lack thereof) of such a supposedly 'radical' or 'high' series on the commercial modes of cultural production in the 1990s, and does much to support the ongoing reading of commercial majority in the control era that takes place throughout the final third of this thesis. Responding to a claim, made in *Connoisseur* magazine, that "*Twin Peaks* would single-handedly change television", Dienst examines the ways in which, regardless of its critical and commercial impact and perceived radical distinction from "standard TV style", it is impossible to consider the series outside of the rules of commerce and spectacle – or "money and magic" – that define television production because these are the basic conditions of the series' existence.[60]

Twin Peaks is of particular interest at this point in the thesis because in attempting to combine the visual aspects of cinema with the distributive properties and data-collection feedback loop of television it represents, theoretically at least, an advanced model of the ideal control-era major object. In keeping with this, the series opened

[60] Richard Dienst, *Still Life in Real Time* (Durham, London: Duke University Press, 1996), p.89-90.

with exceptional viewing figures, some 35 million tuning in to the opening episode, or one-third of the total United States viewing audience.[61] Appropriately, Dienst opens his analysis of the series with a discussion of economics that supports the point, made in Chapter 6 of this thesis, that the collection of audience data is increasingly central to commercial cultural production in the control era. Television, as demonstrated by the current second-by-second data collection of TiVo, presents the potential for the highest detail of time-based consumer feedback of any pre-internet medium as data can be measured in smaller units of time than film or video, which only register whether a consumer bought a ticket or rented a title, not whether they actually watched it. In television this data is central to profit in the shape of sellable advertising slots, and as such has a direct impact on production; as Dienst notes, "most American television serials are still in production as the series unfolds", and "the feedback loop of ratings, competing shows, and network reaction will direct the course a show takes week by week."[62]

Following this basic principle of the control-era major object, Dienst goes on to make a crucial comment about the series' decline and ultimate cancellation in 1991, insisting that it was not a case of the series being too radical or 'high' for some implied conspiratorial culture agency, but simply that people simply lost interest and stopped watching. Dienst argues that:

> [w]hether the show was cancelled because it was badly scheduled or badly produced is not, finally, a very interesting question. Nor is there any point in moralizing

[61] *Ibid.*, pp.89-90. Also see the account of the series' impact in Tom Huddleston and Rumsey Taylor's 'A guide to Twin Peaks', at http://www.notcoming.com/twinpeaks/index2.php. Huddleston and Taylor note that: "[t]he show began its run on April 8th 1990, and was an instant success. A Newsweek article barely a month later raves about 'Twin Peaks mania,' a 'fever… sweeping the land.' The network's faith was amply rewarded, and a cult was born. The soundtrack album charted, as did the single 'Falling,' the *Twin Peaks* theme with additional vocals by Julee Cruise (whose lush debut album with Peaks-evoking lyrics by Lynch was also released around the same time, and featured regularly in the show). There were two tie-in novels: *The Secret Diary of Laura Palmer*, written by Lynch's daughter Jennifer, and *The Twin Peaks Tapes of Agent Dale Cooper*, also available on abridged audiotape read by Kyle McLachlan. Although the show never topped the ratings (it was helpless in the face of *Cheers*' comedy juggernaut) it was by far the most talked about, argued over, passionately loved television show of the year. And this hype would simmer as quickly as it was stirred." Last accessed 10/06/09.

[62] Dienst, *Still Life*, p.92.

> judgement, as when a writer in the *Nation* charged that ABC wanted to kill the show because of its "subversiveness"...It should be clear by now that networks always want success, and that the revolution, any revolution, will be televised if the revenue is good enough – as we saw with the Los Angeles revolts.[63]

Dienst's argument reinforces the crucial point, evidenced in the comparison of *Halloween* and *Suspiria* at the end of the previous chapter, about the inadequacy of notions of 'radical' content more suited to disciplinary notions in control-era counter practice. Instead, what is useful about *Twin Peaks* is its non-radical content, its workaday proximity to the functional characteristics of commercial television. It is this proximity, in the shape of both essential commercial concessions such as advertisement breaks and the formal considerations of television drama in contrast to cinema, which makes the series a suggestive source of prospective minor tactics. Rather than the disordered, entropic final episodes produced after the series and allowing Lynch free rein, it is the brief period in which the series sustains a balancing act between the commercial television series and the counter-concerns of its primary director that is of interest in thinking about the control-era minor.

Despite its ultimate critical and commercial failure, Dienst suggests that it is "pointless to claim that *Twin Peaks* proves the necessary failure of a radical aesthetic" in the control era. Instead, Dienst's analysis suggests that in looking at the brief period in which the series sustained the above-noted oppositions in practice before they failed it becomes apparent that it presents a short-lived, unstable model of the minor within the commercial major.[64] As Dienst puts it, "[w]hat can be explored more tellingly are the ways in which the series was thoroughly 'televisual' to begin with and the ways in which its presentation of images takes place under two rules at once – money and magic."[65] The intersection of these rules can be examined in two connected ways, both corresponding to one of the key aspects of contemporary

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[63] *Ibid.*
[64] Dienst, *Still Life*, p.90.
[65] *Ibid.*

practice set out in Chapter 1; the first is visual, relating to the director's capacity to engage with the comparatively low quality that the distributed form of television necessitates, while the second is narrative, relating to the capacity for the director to create a story amongst the competing informatic concerns of its genre and network. It is through the competition of major and minor concerns from both director and network that the series' control-era minor potential emerges.

Michel Chion, in his 1995 study *David Lynch*, notes the significance of Lynch moving into the commercial realm of television in light of his preceding film work; Chion notes that "[i]n the United States, Lynch is considered a European-style arty director. Many people were thus surprised when he undertook the writing, direction and production of a general audience television series."[66] The implicit conflict between Lynch's "arty" aesthetic concerns and the distributed, commercial imperative of television are reflected in the director's own primary response to the medium. In an interview conducted by Aranaud Vivant for *Libération* in June 1992, Lynch elucidates his position on cinema and television, noting that the significant difference between the media, after distribution, is that "on television, unlike in the movies, you have a bad small image, and bad small sound."[67] Lynch's primary engagement with the television format, then, is to note the reduction of both quality and standardisation of output (since each viewer will have a different television set with different user-configurations in terms of colour, brightness, contrast, sound equalisation and so on).[68] Following from this, in *Twin Peaks* it is clear that there is a fusion of film composition with the "bad image" of television that tends towards the

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[66] Chion, *David Lynch*, p.102.
[67] Dienst, *Still Life*, p.90. Also see Chris Rodley, *Lynch on Lynch* (London: Faber & Faber, 1997), pp.155-156 and pp.175-178, for more on the problems of television as opposed to film for Lynch
[68] Lynch has himself made this point in deploring television as a medium; in *Lynch on Lynch* he states that "if you were able to magically visit 200 houses as *Twin Peaks* was playing you'd see the colour 200 different ways. They send out the signal and everybody's got a different set of colours and brightness lined up. Some people have the brightness down so low that that if you have a dark scene, you don't even see it, or cranked up so high that it's all grey and all snowy and coming apart." Rodley, *Lynch on Lynch*, p.176.

conditions of minor visuality set out above and that is not the result of clear directorial intent but an attempt to counter (or more accurately ignore) the implicit limitations of television as a medium. Lynch's engagement with the possibilities of distribution at this point are less explicitly stated, but can be examined through his reaction to the essential addition of advertising to the form.

Unlike the cinema which precedes its displays with advertising for both miscellaneous commodities and other films and, in the case of the blockbuster, weaves product placement through its diegesis in order to boost its ROI (Return On Investment), on television advert breaks are distributed throughout the broadcast of a given programme at twelve-minute intervals. This leads to a reduction in the quality of information within the story due to the addition of irrelevant information that provides a narrative counterpart to the reduced image quality. The reduced informatic quality enforced by the visual and the commercial concerns of television suggest an abstractable minor possibility within even the most major of televisual commodities. Again, the way in which this fits within the completed *Twin Peaks* broadcast object suggests a minor practice that is not borne out of authorial intent but of commercial imperatives, although Lynch has subsequently noted the effect upon viewing the series' broadcast; in *Time* magazine he is quoted as stating that "It's been a real thrill to watch the show. The commercials are even thrilling. I like to see who's advertising on it. Like Mitsubishi and McDonald's. Big companies."[69] Dienst suggests that this reaction indicates a sense, on the part of the director, that the addition of the "conspicuously disjunctive" advertisements augments the "irregular, nonfitting or

[69] Richard Zoglin, 'A Sleeper within a Dream', *Time* magazine 21 (May 1990). There are various accounts, by way of contrast to this later attitude, of Lynch's unhappiness at the studio confines he was forced to work under making *Dune* (1984) and the ways in which the final film suffered. In Chapter 5 of Chris Rodley's *Lynch on Lynch* the director states that: "I didn't really feel I had permission to really make it my own. That was the downfall for me. It was a problem. *Dune* was like a kind of studio film. I didn't have final cut. And, little by little, I was subconsciously making compromises – knowing I couldn't go here and not wanting to go there. I just fell, you know, into this middle world. It was a sad place to be." Chris Rodley, *Lynch on Lynch*, pp.121-2.

shifting timescale" that the series creates internally.[70] In addition, what this means is that to watch *Twin Peaks* on VHS or DVD is to watch a significantly different object to that first broadcast in 1990 because the adverts are missing and the image is exempt from any artefacts of encoding and broadcasting (static being an extreme example).[71]

Ironically, and importantly in terms of prospective minor practice, while the non-broadcast versions of the series must be seen as being closer to the director's intention since they present an image taken directly from the film source and a continuous narrative arc without advert breaks, the broadcast version with its full complement of commercial impositions is the more effective minor object because it is the version whose informatics are most noisy. As an extension of this point, it is on the VHS and DVD formats where the series has proved a sustainable commercial prospect, indicating that the ultimate failure of the broadcast version could be attributed to the unmanageability of its irregular informatics specifically within the TV market. As such, I reiterate the fact that in this chapter I am particularly interested in addressing *Twin Peaks* as a broadcast television series rather than its later form as a cultural object available across multiple media.

Following from this point, the important questions in relation to control-era majority and minority concern the differences between *Twin Peaks* and the legion of regular television dramas that are able to sustain a lower image quality than that of film and the insertion of advertisements without breaking down. The significant focus of these differences is the series' narrative process, or more specifically the way in which this process accounts for the gaps filled with irrelevant information that advert

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[70] Dienst, *Still Life*, p.94.

[71] Alexander Galloway has made a similar point about the placement of advertisements in the Fox television series *24*, in which the informatic displacement of the adverts is heightened by the fact that each episode is meant to present an hour of action in real time, leading to a shortfall of 7.2 hours over the running time of a whole series watched on DVD. See Alexander Galloway, '24/7, 16.8: Is *24* a Political Show', in *Afterimage* 35.1 (July/August 2007), pp.20-21.

breaks create within it. As Dienst notes, *Twin Peaks* differs formally from other television dramas, and is therefore potentially more unstable informatically, because of its connection with cinema. Dienst suggests that the series is characterised, in distinction to other television drama, by its pace: "unspooling at its own pace amid the clockwork regularity of broadcast flow, *Twin Peaks* avoided both the usual televisual formats and the long-range vanishing point of cinematic closure."[72] In other words, in terms of its narrative process, and in correspondence with its visual dimension, *Twin Peaks* occupies an undecidable narrative position between television and film. Jonathan Beller suggests that televisual narrative, when compared to that of commercial cinema, is "dispensable", but in making this claim he focuses on the fractured, "stammering" forms of music television that run through the series *Beavis and Butt-Head*.[73] The terms of the television drama that furnishes part of *Twin Peaks*'s narrative form, however, are different from those of MTV because there are relatively stable arcs concerning plot and character development that essentially correspond to classical rules of drama set out by Aristotle and commercially formalised by McKee even when punctuated by breaks and extended over a far greater duration than the stage play or fiction film. In the same way that continuity editing functions in the Hollywood cinema to obfuscate its work, in conventional television drama the narrative is organised into discrete "story-tracks" that minimise the impact of commercial breaks on the narrative flow. What is crucial about *Twin Peaks,* in thinking about commercial informatic disruption, is that it further complicates this process through the addition of a second, higher-level set of conflicting narrative objects. In addition to the fundamental informatic conflict

[72] Dienst, *Still Life*, p.94.
[73] Jonathan Beller, *The Cinematic Mode of Production*, pp.152-153. For an account of the specific formal construction of music television see Carol Vernallis, *Experiencing Music Video* (Chichester: Columbia University Press, 2004).

between narrative and advertising information, in *Twin Peaks* there is a conflict between the detective story and the soap opera that further disrupts the function of its info-narrative.[74]

Speaking of *Twin Peaks* Lynch himself states that "the idea of continuity on television is fantastic. Never say goodbye…"[75] The soap opera is a genre of interminability and perpetual modulation, and as such is an emblematic control form. When character A and character B fall in love in a soap and eventually get married, this can never be an ending, only a high point on an ongoing line.[76] By contrast, the detective story is a genre of terminability – the crime must take place and be solved, at which point the story ends – and as such is an emblematic major disciplinary form, although the procedurality of its narrative lends itself to formalisation within the lexicon of control. The overlaying of these two conflicting popular forms, each corresponding to a distinct historical period and function of narrative time, is crucial to both the minor function and the eventual commercial failure of the series.

The following exchange in Chris Rodley's *Lynch on Lynch* allows some insight into the incompatibility between soap and detective story in *Twin Peaks*:

> [Chris Rodley] *By the time we get to an answer – that it was Leland – it doesn't really seem to matter any more. By then it's clear that an evil force – Bob – is operating from within the 'host' character anyway. So pointing the finger at Leland isn't really an answer at all.*
> [David Lynch] It's not an answer. That was the whole point. Mark Frost and I had this idea. The way we pitched this thing was as a murder mystery but that murder mystery was to eventually become the background story. Then there would be a middle ground of all of the characters we stay with throughout the series. And the

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[74] The multi-genre composition of *Twin Peaks*, and the resultant and rapid decline in popularity it faced a result of this, are thoroughly covered by Marc Dolan in his essay 'Peaks and Valleys of Serial Creativity', in David Lavery ed. *Full Of Secrets: Critical Approaches to Twin Peaks* (Detroit: Wayne State University Press, 1995). While Dolan's claims about the intentions of Lynch and Frost and the comparative merits of season 2 over season 1 seem both limited and somewhat wayward, his discussion of television genres, detective fiction and their interactions within *Twin Peaks* are useful.
[75] Lynch, quoted in Chion, *David Lynch* p.103.
[76] For a detailed account of narrative form in soap opera see Carol Traynor Williams, *"It's Time for My Story": Soap Opera Sources, Structure and Response* (Westport: Praeger, 1992). For a historical survey of the serial drama from print to television see Roger Hagedorn, 'Doubtless to be continued: a brief history of serial narrative', in Robert C. Allen ed. *To be Continued…Soap Operas Around the World*, (London: Routledge, 1995).

> foreground would be the main characters that particular week…We're not going to solve the murder for a long time.[77]

Rather than the "dispensable" narrative of television suggested by Beller, what the narrative process of *Twin Peaks* indicates is that the television soap opera is *disposably irreversible*. Irreversible because it is always moving forward, and is practically impossible for the user to manipulate without remediation; disposable because this impossibility of reviewing is essential to the narrative function that its perpetual modulation creates. The soap must dispose of its past evidence in order to maintain any semblance of continuity across its full duration. This demonstrates how the relationship between continuity and 'quality' or consistency (as determined by profitability) is different in the major narrative forms of the control era – including its commercial cinema – to that in the classical cinema and other disciplinary forms. An obvious example here is the regularity with which characters in the soap opera act as close friends despite having seldom met or conversed in the sum total of previous episodes. Not only do the viewers of television drama "never say goodbye", they also never revisit past moments except in flashbacks or reruns.

The centrality of TV's disposable irreversibility within *Twin Peaks* is clearly visible in one of its most famous scenes. At the end of the second episode FBI agent Dale Cooper, who had previously dealt solely with the techniques of the traditional detective, finds himself dreaming of a zigzag tiled, red curtained room where he is given abstract clues by a dancing dwarf while ghostly shadows flit around. Everyone's (except Cooper's) movements and speech are distorted through an unusual use of backward masking. This scene marks a significant moment of mediality in the series. In *Twin Peaks,* a series for television that is therefore temporally unmanipulable by the user without remediation (for example, the

[77] David Lynch interviewed by Chris Rodley, *Lynch on Lynch*, p.180. More on this can be found in the chapter of Chion's *David Lynch* that discusses *Twin Peaks*.

recording of the broadcast to video), the actors learned their dialogue phonetically backwards. The scene was shot with the dialogue and movement acted out backwards and then reversed for broadcast, resulting in 'forwards' speech and movement that retains the distortions inherent to reversed tape.[78] On broadcast television even reversing the source tape must contribute to forward motion, and for the effects of reversed tape to be added it might be necessary to make actors learn to walk and speak backwards. The technical revelation of this sequence explicates the disposable irreversibility of television that is central to *Twin Peaks*'s informatic disruption alongside the detective story, the location of advertisement breaks within its narrative arc and the interplay between cinematic composition and television quality.

In the same way that the informatic disruption of the advertisements means that the series has a significant minor function only when broadcast, its application of television's disposable irreversibility only attains its proper conceptual function in the original medium. Equally, Dienst's suggestion that the series was *made* to be "read and reread" suggests that its directorially-intended form is less useful in thinking about the minor tactics it presents than its commercially-mediated one.[79] These factors act as a reminder that *Twin Peaks* is not a model of contemporary minor practice as intended by its creators, but a form from which such tactics can be extracted; the pause, rewind and fast-forward enabled by video, DVD and hard-disk TV (TiVo, Sky+) negate the essential function of disposable irreversibility, for example, necessitating a reconsideration of the exact form that minor practice must take alongside technological change. Regardless, the fine balance between centralised (cinema) and distributed (television) form, composition and low resolution and twin, irreconcilable modes of narrative time that *Twin Peaks* presents allows for the

[78] Friedrich Kittler has written on the unique affective capacity of recordable media through time axis manipulation, for example the reversal of a recorded voice or image that is impossible without these media. See 'Gramophone' in Friedrich Kittler *Gramophone, Film, Typewriter* for a discussion of time axis manipulation and its affectiveness.
[79] Dienst, *Still Life*, pp.94-95.

consideration of a number of tactics for informatic disruption that can take place within control-era major practice.

At the end of the dream sequence described above, a woman claiming to be the murder victim's cousin whispers the name of the killer into Cooper's ear, and he wakes up unable to remember what she said. The remainder of the series' first season plays out an asymmetrical or undecidable narrative, caught between the movement towards revealing the killer that characterises the detective story and the proliferation of noise, in the form of undecidably important information, which characterises the television drama or soap opera. This period of the series' lifespan functions as the site of prospective minor form because it remains suspended between the intentions and preoccupations of its director/co-creator and the abstracting functions of the market. The gradual failure of the series as first commercial prospect and second contemporary minor form (the latter factor being conditional on the former) can be seen as the result of three interrelated factors: the revelation of the killer's identity which displaces the balance between detection and indeterminability, the subsequent declining ratings that led to the series' cancellation, and the acceptance of this cancellation as carte blanche for the directors, primarily Lynch, to do whatever they wished with the remaining episodes.

Where the early episodes of *Twin Peaks* foreground the formal indifference created by the interplay of both irreconcilable forms (the detective story and the soap) and irreconcilable information (the essential and nonessential narrative information and the advertisements), corresponding to the digital counter-forms of noise and nonexistence, the final episodes are characterised by narrative entropy – the reassertion of Lynch's predominant creative concerns as closely related to *disciplinary* modes of counter-practice. Tom Huddleston remarks that:

> David Lynch's final episode of *Twin Peaks* is the work of a man working almost entirely without restrictions, beyond those of budget and societal decency. It's an

> astounding work of the imagination; complex, frustrating, nightmarish and dreamlike, beautiful and inexplicably emotional. The series' cancellation was by this point confirmed, so there were no longer any boundaries, no viewers to satisfy, no ratings to worry about. But despite appearances Lynch is a responsible filmmaker, and the episode still manages to work as a conclusion to most of the plotlines in the series, even if that conclusion is sometimes rather more violent and shocking than we had expected.[80]

The concluding episode has the effect of not only confirming the destruction of the dynamic *Twin Peaks* system, the relay between commercial codes and noise that functions with great if unsustainable precision in the early episodes, but of making clear the fineness of balance that this system is predicated upon. The evidence of the final episode in particular, along with Lynch's avowed distaste for the visual and aural quality of television, suggests that the series made exactly to the director's wishes would not be of much use in considering prospective minor tactics in the control era. His response to actually watching the series with adverts as noted above, however, suggests that the final outcome was not lost on him, and an examination of his subsequent work suggests an influence of the series, with the necessity of advertisements, the "small bad image", the "bad small sound" and the resultant informatic disruptions within the overall work, on his post-*Twin Peaks* practice.

Fire Walk with Me (1992) is a prequel to *Twin Peaks*, concerned initially with a previous victim of the supernatural killer BOB and then with the final days of Laura Palmer. Being a feature film, directed by David Lynch alone, *Fire Walk with Me* is constant in demonstrating how it is not the television series *Twin Peaks*. It always has an ending in sight, made inescapable by the fact that it is a prequel, where the detective narrative of *Twin Peaks* is always extended by the interminability of the soap opera; it focuses, for the most part, on a single character where *Twin Peaks* addressed a multitude of characters; it is psychologically 'realistic', centred on Laura

[80]Tom Huddleston, review of *Twin Peaks* final episode, http://www.notcoming.com/reviews.php?id=576#e29. Last accessed 21/07/08.

Palmer's trauma as she simultaneously discovers the actions of BOB and his composite with her father, where *Twin Peaks* is populated by indifferent 'types'.

At every turn *Fire Walk with Me* is concerned with addressing technical issues relating to distinct media; this is clear from the openings seconds, in which static fades to a television set imploding as a woman screams.[81] The effects of *Twin Peaks* cannot be reproduced in the feature film because they are medium-specific, and this is something that *Fire Walk with Me* foregrounds throughout its duration. The only scenes featuring Cooper, the nominal centrepiece of the original series, come at the end of the prologue, and concern an incident in FBI headquarters when a long-missing agent, played by David Bowie, makes a reappearance. At this point, the scene collapses into both visual and narrative noise, static overcoming the frame as a second scene concerning the supernatural occupants of the series' 'Red Room' is superimposed over it. A few minutes after this crossing of signals, and after Cooper briefly visits the site of the previous BOB murder, the most jarring, disjunctive moment of all occurs as the opening shot of the series' credits, and Angelo Badalamenti's famous opening theme, are briefly replicated as we make the transition to the Laura Palmer-focussed body of the film. From distortions that can only occur in broadcast media such as television (static, crossed signals) to the conspicuous placement of elements implying an opening credits sequence, in this part of *Fire Walk with Me* the ontological specificity of the television series is explicated through direct comparison to the film medium and form. This has the effect, throughout *Fire Walk with Me*, of retrospectively confirming the conditions that make the broadcast of *Twin Peaks* a productive site of prospective minor tactics within the distributed, informatic modes of the contemporary, control-era major.

[81] See Chion, *David Lynch*, pp.42-59.

'Crossed broadcast' scene from David Lynch, *Fire Walk with Me* (1992)

Opening credits reference from *Fire Walk with Me*

If *Fire Walk with Me* identifies and acknowledges the specific conditions of the distributed television format and its role within contemporary practice, Lynch's most recent work *Inland Empire* (2006) evidences traces of the impact of these contemporary tactics on the director's 'intentional' practice.

In *Inland Empire* the contemporary Hollywood studio picture creates indifference between fictional and non-fictional subject matter, scripted events and the lives of its characters and actors. As K-punk points out, the film is characterised by a kind of

"Kafka-Carrollian" internal geography, a fabric of planes and holes that relate directly to the perpetual undecidability of its formal makeup:

> A hole cigarette-burned into silk; a hole in the vagina wall leading to the intestine; a hole punctured into the stomach by a screwdriver; rabbit holes; holes in memory; holes in narrative: holes as positive nullity, gaps but also tunnels, the connectors in a hellish rhizome in which any part can potentially collapse into any other…The best readings of *Inland Empire* have rightly stressed the film's labyrinthine, rabbit-warren anarchitecture.[82]

These "holes as positive nullity" form a clear correspondence with the concepts of nonexistence and digital noise that, in their present-but-unclassifiable state are crucial to tactics of control-era minor practice. Again, it is an issue of mediality and its relation to narrative information that is foregrounded; directly related to this "anarchitecture" is the way in which *Inland Empire* is produced and shot, not on film, but on a relatively cheap 'prosumer' DV (Digital Video) camera, the Sony PD-150. The David Lynch who complains about the "bad small image, and bad small sound"[83] of television is, by the making of *Inland Empire*, less concerned with the qualitative traditions of the history of cinema, favouring an alternate form that privileges speed and manageability and that necessitates the accommodation of noise, over classical lushness.

In *The Art of the Ridiculous Sublime* Žižek argues that there are two prevailing approaches to Lynch's work; either they are "cold, postmodern exercise[s] in regressing to the scenes of primal anxieties" or "New Age" narratives that focus on the "flow of subconscious Life Energy that allegedly connects all events."[84] Responding to these two prevailing readings, Žižek somewhat flimsily articulates a third possibility that has to do with information, and it is the extended implications of this argument that are helpful in determining elements of a contemporary counter-

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[82] K-Punk, 'Something got out from inside the story: Lynch's unhome videos', http://k-punk.abstractdynamics.org/archives/2007_04.html, last accessed 21/07/08.
[83] Chion, *David Lynch*, p.102
[84] Slavoj Žižek, *The Art of the Ridiculous Sublime*, p.3.

practice in Lynch. Žižek's limited notion is that the hypertext as rhizome is a productive parallel to the coexistence of "multiple fantasmatic narratives."[85] While there *is* an information-technology narrative at work in Lynch, it is related to the ways in which the informatic, formal languages that define the control era, running experience in the form of both popular narratives and computer programs at a hidden level, can be derendered and made buggy in image and narrative rather than in the surface form (hypertext) that Žižek suggests. For Lynch the grasped productive possibilities of reduced information are such that, in an interview with Scott Thill in *Wired* magazine, he uses the concept of information specifically when talking of never using film again:

> … [DV is] a new world. The quality is pretty terrible, but I like that. It reminds me of the early days of 35 mm, when there wasn't so much information in the frame or emulsion. But the human being is a beautiful creature; you act and react, and the medium starts talking to you. So I love working in digital video. *High-def is a little bit too* [much] *information to me.*[86]

DV, for Lynch, puts "film into the La Brea Tar Pits."[87] Accepting reduced image quality represents a decoupling of comprehensive information from narrative, the creation of prospective minor practices. High Definition Video is as portable, fast and manipulable as DV, but for Lynch the lower-quality medium is the correct tool; the frame carries less information in terms of both pixels and literal detail, and is vulnerable to the appearance of digital artefacts (noise) as a result of this.

Consequently, through Lynch's accommodation of the low-resolution camera, a visual language becomes available that is distinct from the ubiquitous, ever-growing resolution that overlays the major narrative forms of the control society. Alongside this visual dimension, necessitated by the commercial constraints of production time and budget, Lynch has yet to fully engage with the narrative tactics that emerge from

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[85] *Ibid.*, p.36.
[86] *Ibid.*, Emphasis added.
[87] Scott Thill, 'David Lynch's Weird, Wired World', http://www.wired.com/culture/lifestyle/news/2007/01/72391?currentPage=1. Last accessed 23/08/07.

Twin Peaks, specifically the overlaying of incompatible info-narratives and the accommodation of the artefacts of value abstraction (such as the accommodation of irrelevant information through abstracted concerns such as advertisements). While the "holes as positive nullity" that constitute points of nonexistence in *Inland Empire* correspond to the formal aspects of control-era minor practice, there is no significant attempt to locate these points of nonexistence within the abstracted codes of the contemporary major narrative form. Put simply, there is too much noise and not enough signal for *Inland Empire* to be politically functional at the narrative level in the same way that it is at the visual level (and at the level of visual-narrative allegory). Like *Suspiria* in contrast to *Halloween* at the end of the previous chapter, the excess of noise in *Inland Empire* is spectacular and related to talent where the contemporary minor work (such as the broadcast *Twin Peaks*) is indifferent and related to technical virtuosity. Despite Dienst's suggestion that in watching the broadcast of the series – including the commercial breaks that were not included in the production and editing of the individual episodes – Lynch grasped the narrative possibilities of disjunctive or irrelevant information, he has yet to demonstrate this mode, which I will call indifferent informatics, in his subsequent work in the same way that he has grasped and applied reduced image quality. In order to examine the tactical possibilities of this process, it is now useful to look at the work of a director who emerges from the distributed, control-era industry of direct-to-video and television direction rather than arriving at it from the disciplinary-era position of the cinematic auteur. The following chapter focuses on the film, television and video work of Takashi Miike and in doing so extends the reading, begun in this chapter through *Twin Peaks*, of indifferent commercial abstraction at each of the visual, narrative and industrial levels of production as the site of prospective minor tactics.

Chapter 9: Indifferent Informatics in the Film, Television and Video of Takashi Miike

In the previous chapter *Twin Peaks* served to suggest some ways in which a minor practice can function within the abstract informatics of the commercial, control-era major. The significant aspects of the series' minor potential relate to the ways in which it was briefly suspended between the cinematic, individual expression of its co-creator David Lynch and the commercial and technical components of the major network television series. While *Fire Walk with Me* and *Inland Empire* suggest that Lynch retrospectively grasped some of this control-era informatic minor potential in the broadcast version of *Twin Peaks*, those films are much more convincingly engaged at the levels of visuality and mediation than at the level of info-narrative, and this can be attributed to the director's background, his associated artistic concerns and their relation to disciplinary major and minor practice. While the outside impositions of commercial television create an unintended and unstable model of minor practice in *Twin Peaks*, too much entropy and too much 'talent' remains in Lynch's individual creative system for it to sustainably accommodate the conditions of a control-era minor practice whose essential creative mode is the technical virtuosity of the hacker. In this chapter I move on to examine the work of Takashi Miike, a director who emerges from a career in late-1980s to early-1990s television and direct-to-video genre production to create works of disruptive informatics that abstract noise from the abstracting processes of the control-era major. Shinya Tsukamoto describes Miike's work as "fierce", "nonsensical", "vulgar" and "powerful", all adjectives that correspond to a counter-mode in contrast to the efficient, demographically-targeted forms of major practice.[88] These terms in themselves, however, could just as easily be attached to Godard or Lynch, directors whose counter-practice I have already

[88] Tom Mes, *Agitator* (Godalming: FAB Press, 2003), p.397.

attached to the disciplinary period (or more accurately a disciplinary methodology, since both directors emerge from the transition period between societies). The significant difference between Miike's work and Lynch the "European-style arty director", for example, is Miike's early career in industrial, control-era major production. It is this background in the technical, algorithmic modes of contemporary production that allow his later work to function as a source of minor tactics, tactics that do not tend towards major 'talent' or the disciplinary modes of entropic counter-practice but instead engage with the indifferent informatics of the present era as their basic condition of existence.

Tom Mes, in his exhaustive study of Miike's work *Agitator: The Cinema of Takashi Miike* (2003) offers a brief description of the director's early career from television to V-Cinema (the 1980s-1990s Japanese direct-to-video industry that is an economic and productive double of the Western model examined in Chapters 6 and 7). This period is characterised by a working pace that has a clear connection to Miike's present, high-output production schedule (which will be discussed presently), and a necessary indifference to the raw materials of each film (i.e. script, genre, commercial concerns and available technology) that provides his later work with the formal, technical vocabulary to function as a site of prospective minor tactics.[89] In the introduction to *Agitator*, Mes writes that even today, as a 'name' director with international distribution and multiple festival entries rather than as the production company middle-manager of his television and direct-to-video years, Miike works "mainly in the guise of director-for hire for both major studios and independent production companies."[90] The director's selection process for jobs is described as follows:

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[89] Mes states that, in his near-ten year stint in television production, Miike took "an average of forty to fifty jobs a year". Mes, *Agitator*, p.17.
[90] *Ibid.*, p.10.

> [Miike takes work] indifferent of budget, status or the presumed artistic merit of the material. In the 54 films [at the time of Mes's writing] he has helmed as director, he has explored nearly every imaginable cinematic genre (save a notable absence of erotic films, despite an enduring misconception that he has a career on the side making porn videos).[91]

It is this indifference, which has a clear correspondence with the industrial dimension of Miike's early career, which furnishes the noisy abstractions of his later work. In terms of this chapter, indifference is the crucial factor in my discussion of contemporary minor practice within the abstract, technical function of contemporary commercial production, presenting as it does a connection to the noisy informatics, cramped spaces and scarcity of talent that are crucial to such a practice.

Mes's figure of 54 films directed by Miike is correct as of 2003, but to contextualise the director's working pace stands at 80 at the time of this writing. In conjunction with this productivity it is essential to note that the majority of his work takes place within the emblematic direct-to-video genres of action (*Shinjuku Triad Society* [1995], *Dead or Alive* [1999]) and horror (*Audition* [1999], *One Missed Call* [2003], *Box* [2004]), *Imprint* [2006]), although he has also directed historical dramas (*The Bird People in China* [1998], *Sabu* [2002]), and children's fantasy adventures (*Zebraman* [2004]*, The Great Yokai War* [2005]) amongst many other genres. In many ways Miike is the paradigmatic control-era major director, producing algorithmic info-narratives that are indifferent to all concerns except those of the market. Mes describes the films of the V-cinema market that produced Miike's early directing jobs as follows:

> To all intents and purposes they are the most basic forms of genre films, made for a market and by that market's requirements. Many of these films witness little ambition beyond delivering the action, comedy, sex, violence, romance or intrigue that the viewers (or more precisely the producers) demand, sometimes with a shaky storyline or questionable performances from the cast.[92]

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[91] *Ibid.*
[92] *Ibid.*, p.35.

Before any kind of individual aesthetic can develop in his work, Miike is engaged in the mass-production of the type of algorithmic narrative that, through its low production values and specific targeting of niche markets or dividuals, offers as unadorned a model of control-era narrative production as the slasher film discussed in Chapter 7 does. These kinds of films move procedurally from action scene to action scene (for example) in the same way that the slasher does with murder scenes and the 'higher' example of the special-effects blockbuster does with special effects scenes. As such, they provide an essential informatic background to Miike's more recent work, which abstracts both visual and narrative noise from the abstract, coded commercial concerns of production to suggest several prospective tactics for control-era minor practice.

It is notable alongside Miike's large number of directing credits that he has only amassed three writing credits over the same period.[93] Miike does not create from scratch, which would tend towards a disciplinary sense of individuality and a major sense of talent, but instead recycles or reorganises – most often in response to demographic data corresponding to the action or horror genre markets – within specific story algorithms. This suggests a kind of executed indifference that corresponds to the technical virtuosity of the hacker and that is highly productive in considering the role of the contemporary minor counter-practitioner.

Executed indifference is the deployment of indifference or the creation of positive terms, such as control-era genre films that cannot be absolutely coded, out of conditions of indifference. It is a close relation to the abstraction that characterises control-era major practice since it reduces difference to surface effects, and as such constitutes a vital tactic for counter-practice. It is also a close correlative to Galloway

[93] This figure is according to imdb.com as of 18/06/09. In *Agitator* Mes does not account for any of these writing credits as they occur after the book was published. He does, however, add an extra credit; the adaptation of Eiji Ôtsuka's manga for *MPD Psycho*. Mes, *Agitator*, p.193.

and Thacker's nonexistence, where negligibly-important or undecidable information is promoted in order to problematise the creation of exhaustive data sets and efficient algorithms. In Miike this can be seen at multiple levels, in the indifferent deployment of the various aspects of filmmaking to produce a body of work that cannot be attributed to an individual director and as such to a definable talent. The director expresses this in an interview with Mark Schilling, stating that:

> Directors usually try to express themselves through the story and through images. They try to develop a style that marks their films as their own. I've freed myself of that. Instead of aiming only for self-expression, I regard filmmaking as a profession that I work at with various partners, trying various modes of expression.[94]

In "freeing himself" from the disciplinary mode of individuality as "self-expression" Miike is both the ideal control-era major director who falls seamlessly into the network of commercial (audience targeting) and formal (algorithmic narrative, technical limitations) codes, and an ideal practitioner through which to examine prospective counter-tactics.

The ways in which indifference is executed in Miike fall into four main categories. The first relates to visuality and the indifference to image quality that Miike deploys as both a practical, budget-management concern and a vector for the insertion of noise; the second relates to commercial modes and can be seen in the way Miike leverages the sequel system to both sustain and problematise narrative in his *Dead or Alive* trilogy (1999, 2000, 2002); the third relates to info-narrative and can be seen in way in which the indifference of internal characters to the ongoing story in *Gozu* (2003) creates a tension between executed algorithm and noise; the fourth is concerned with the way Miike crosses genres – as in *Audition* (1999) – not to create the radical break of disciplinary practice but to demonstrate the seamlessly interchangeable informatics that underpin story in the control-era.

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[94] Mark Schilling, 'Anything Goes', http://search.japantimes.co.jp/cgi-bin/ff20030723a1.html. Last accessed 18/06/09.

Technology and indifferent visuality

Across his work for assorted media Miike has worked with analogue and digital video, film, television and most recently the stage play (*Demon Pond* [2005] and *Zatoichi* [2008]). Unlike Lynch in the period surrounding *Twin Peaks* Miike professes no sense of limitation from the lower-quality media. In '"I Can't Pretend to Know What I'm Doing"', an interview with Mes published in *Agitator*, he states that:

> I don't see any distinction between working for those three formats (television, cinema and video). A project comes up as being for cinema, for video of for TV. That's the difference. But for me, it's all the same. It's like a chemical reaction. If you mix it with one thing, it becomes poison, but if you mix it with another, it becomes medication. So it changes naturally depending on the mix.[95]

Not only does Miike claim to not privilege one medium over another, he sees *no distinction* between them other than the specific mixtures that they make possible. This indifference to image quality is an essential component in the way Miike's work suggests prospective tactics of control-era minor practice. The reduced information that the images of television broadcast, analogue and digital video contain are not limitations for Miike as they are within the major modes of production that privilege hyperreal, digitally-aided visuality over all other modes and whose highest form is the special-effects blockbuster (*Terminator 2,Jurassic Park, Titanic*). Instead, Miike claims to not care about the distinctions, or not see them at all, but at the same time uses the artefacts of the lower quality media to visually manifest noise in correspondence with the narrative content of his work. This is an approach that is suspended between commercial productive concerns (budget management) and the creative possibilities of varying media. In the above-quoted interview with Mes, Miike discusses the relationship he has with regular cinematographer Hideo Yamamoto as central to his deployment of medium, foregrounding the centrality of commercially-abstracted indifference and collective expression in his work:

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[95] Mes, *Agitator*, p.338.

> He doesn't have a choice when he works with me, because of the budget. Based on the constraints I give him, he has to choose the camera the budget allows for. But he believes that there are more important things for him that the choice of camera…He doesn't care about the format and doesn't stick to using a certain kind of camera. That's an aspect of him I like very much.[96]

Miike's indifference to varying image resolution is demonstrated through his use of digital noise, self-imposed 'mosaics' of the type of static usually deployed by third-party censors and stock footage, a hallmark of the low-budget or 'B' movie. These types of degraded (or reduced-information) image occur throughout his work. *MPD Psycho* contains censorship mosaics (digitally blurred-out elements within the frame) throughout, especially in the early episodes in which the work of a serial killer is being revealed; these are intentionally placed by Miike rather than any censoring body, and often do not hide anything. Their placement is not an institutional response to unsuitable content, but the deployment of undecidable or unmeasurable bodies of information within the image.[97] *Graveyard of Honour, Dead or Alive: Final, Gozu* and *Izo,* amongst others, employ stock footage in a way that suggests an approach to form and medium that is less concerned with consistency than the combination of various degrees of visual information, while *Ichi the Killer* and *Gozu* contain examples of footage that is made to appear noisy through digital after-effects. That footage is as often manipulated to look noisy through post-production effects as it is 'authentically' noisy as a result of the camera, film stock or quality of stock footage, foregrounds an interest in low-quality images that goes beyond budget limitation in Miike.

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[96] *Ibid*., p.351.

[97] The censorship mosaics are discussed by Miike in an interview with Tom Mes, in which he states, of their inclusion in *MPD Psycho*, that: "From the start I thought about how big to make those mosaics and where to put them. In the end result, there was nothing at all underneath the scrambled patterns in some scenes. Many people feel negatively about the technique of covering things up, but I think it's a very Japanese form of expression, one that can be attractive even. I thought it would be fun to be in the position of those people who have to censor films and TV series, who decide where and when to put these cover-ups. From a technical point of view, I don't really have a negative attitude towards it. Also, from the moment things are covered up, we are stimulated and we start to imagine things that are even more grotesque or more beautiful than what was originally there. I wanted to provoke that kind of imagination in people, which I think is a very cinematic technique." Mes, *Agitator*, p.348.

Censorship Mosaic from Takashi Miike, *MPD Psycho* (2000)

Digital noise from *MPD Psycho*

Stock Footage from Takashi Miike *Dead or Alive: Final* (2002)

While applications of formats lower that 35mm film both on their own and in mixtures with other formats is by no means practice unique to Miike, their specific deployment in his work is significant within the control era for two reasons. Firstly, his position within major productive and distributive markets places technology in a direct correspondence with data, especially in the way access to varying formats is dependent on budget which is in turn dependent on the projected size of the given project's target audience. Secondly, and more abstractly, his indifference to media with their corresponding image qualities takes on a heightened significance in the control society because image quality equates to informatic content. In mixing image qualities in his work Miike is engaging with the data-led mode of production and at the same time mixing informatic content, producing a disjunctive whole in contrast to the consistency of image demanded by the higher (blockbuster) end of major practice. Viewed in this light, a second recurring visual technique in his work takes on a particular significance alongside that of mixing resolution: the use of 'bad', or overly-conspicuous CGI. This type of 'bad' image does not result from low-quality technology, as Lynch suggests the "bad small image" of television does; instead 'bad'

images in Miike's work result from techniques originally designed to create high-resolution spectacle in the cultural objects of the control society (such as film, television and videogames) being deployed in a way that fails to achieve a high quality of computer-generated model that is properly blended with the source medium.[98]

'Bad' CGI from *MPD Psycho*

'Bad' CGI from *Dead or Alive: Final*

[98] For an analysis of digital compositing see Manovich, *The Language of New Media*, pp.142-161.

This indifferent deployment of 'bad' CGI as well as less-than-optimal image quality is definitive of the way informatic procedures derived from the major mode of production function in Miike to create conditions of minor practice.

The depiction of rain in *MPD Psycho* is a key example of the way visual and narrative informatics in Miike are related to the control-era mode of production. There are two types of rain that occur in *MPD Psycho*, one depicted naturally and the other appearing a fluorescent green through digital effects. Characters shelter from the 'normal' rain, using umbrellas and running from building to car, but do nothing of the sort when the digital rain falls. Despite this, neither the characters nor the environment become wet under the second type of rain; it only exists as an extradiegetic effect, the control-defining presence of a visuality that does not relate to either plot or the image captured on camera but instead does nothing except communicate surface distinction to the end user. The first has a causal role within the diegetic world of the series; something happens (it rains) and it causes a character to react (they put up an umbrella, remain indoors or shelter in some other way). This mode relates to the narrative process of the disciplinary era and the procedural, step-by-step mode of narration that is abstracted from it to form info-narrative. The second is indifferent; something happens (it rains), and its effect is confined to the experience of the end-user, having no effect on the diegesis whatsoever. The second type of rain relates to the real productive mode of control, where the causality derived from classical storytelling functions only as a surface effect to smooth and render familiar the end-user experience. The placement of these two effects within the same narrative object in *MPD Psycho* demonstrates the abstraction of narrative that forms both the major basis of Miike's work and the minor tactics that it suggests.

‘Normal’ and ‘Digital’ rain from *MPD Psycho*

What these two types of rain illustrate, in relation to the broader connection between market, visuality and narrative in Miike, is that the consistency of information in Miike’s work is indifferent from the visual level downwards, demonstrating a clear contrast between technical virtuosity and talent. This visuality directly translates to the other informatic levels within his work, presenting a model of the way his work functions in oscillation between the algorithmic forms of control-era popular genre and the undecidable noise of prospective counter-practice.

Sequels and formal indifference

As detailed in Chapter 7, the way in which the sequel market fits within the distributive systems of the control era is emblematic of the function of algorithmic info-narrative. Miike’s thoughts on the process support this view, making his

engagement with the sequel system in his *Dead or Alive* trilogy highly productive in thinking about ways in which the abstracting logic of the control-era sequel market can be deployed to problematise this info-narrative.[99] On the commercial logic behind sequel production Miike states that:

> Generally, I think making a sequel is an insult to the original film, because the producers think we can make something better than the first film for less money. But it is the common thing in the video industry. When the first film is a hit, the company thinks of making a sequel. For example when we sell 20,000 copies of a video, they think we can sell at least 15,000 copies of the sequel. The budget is then decided as being suitable for selling 15,000 copies, so a sequel project is always based on negative thinking.[100]

This statement, which also has implications for the allocation of budget and hence quality of format discussed in the preceding section of this chapter, directly connects Miike's specific industrial background to the way in which he exploits aspects of this productive logic in his *Dead or Alive* series of films. Despite the clear signification of their titles, each comprising *Dead or Alive* with numeric and/or textual subtitle Miike's trilogy presents three films connected only tangentially in terms of their diegeses by the fact that the protagonists of each narrative, despite being killed at the end of both the first and second instalments, look the same due to being played by the same actors, Riki Takeuchi and Sho Aikawa. This has the effect of extending the abstracting logic of the sequel system into the underlying narrative algorithms of the film objects themselves. Miike himself has stated that "when I got the chance to make

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[99] The *Halloween* sequels make a good example here because of the great lengths needed to implement a continuity that is not supported by the original. Both *Halloween* and *Halloween 2* end in ways that appear to preclude sequels, but after the commercial failure of Tommy Lee Wallace's *Halloween 3*, which dispenses with the premise of the preceding films and attempts to move the series into a new direction, three more entries continuing the Michael Myers plot in increasingly convoluted ways were made before this arc was 'reset' to the point immediately following *Halloween 2*, resulting in two more sequels. The remake of the original *Halloween* completes this plot of negative thinking - as Miike determines the sequels industry - eliminating the central horror of implacability in favour of a psychologically 'realistic' approach and a far higher degree of explicit violence. The sheer amount of information work that goes into overwriting the undecidability at the core of the original film and the resultant discontinuities in terms of continuity suggests that the narrative processes of the sequel market are a potential source of minor tactics.

[100] Mes, *Agitator*, pp.342-343.

the second one [*Dead or Alive 2: the Birds*] I saw it as an opportunity for resistance, for rebellion, by not making the sequel as a sequel but by changing things around."[101]

In each of the *Dead or Alive* films Takeuchi and Aikawa represent a paradigmatic pair from major genre cinema; cop and robber in *Dead or Alive,* 'buddies' in *Dead or Alive 2* and human and robot in *Dead or Alive: Final*.[102] Each film ends with an over-extension of both character and actor function that breaks the continuity between market data (the perceived preference for, and hence necessity to reuse, the same actors in a series of films) and info-narrative (the production of a narrative that both accommodates these actors/characters and moves procedurally between scenes that showcase elements deemed popular in the original, e.g. action scenes or comedic set-pieces) that sustains the control-era sequel series. *Dead or Alive* finds the two leads, whose sole character function as cop and robber respectively has been to eliminate the other, meet on a desert road where they employ increasingly heavy weaponry to blast away at each other without any fatal impact before, finally, the camera cuts away to a long shot of the planet exploding. At the climax of *Dead or Alive 2* the two 'buddies', riddled with a clearly lethal number of bullets from a shootout with gangsters, somehow remain alive and well some hours later as they catch a train, then a ferry to the island on which they grew up, before finally 'dying' at the point the script demands. The conclusion of *Dead or Alive: Final* is the most explicit in terms of the extended protagonist/star function that Miike implements in the films, Takeuchi and Aikawa engaging in a lengthy fistfight before becoming consumed by a ball of light, emerging as a giant robot with bird wings that reference a recurring motif in the preceding film and flying off to confront a tyrannical villain. It is notable in this last example that this concluding confrontation is cut at the moment the villain

[101] *Ibid.*, p.343.
[102] The final duo is actually broader that 'human and robot' alone, and could be more accurately surmised as 'human and nonhuman'; for examples of this pair, see James Cameron's *Terminator 2* and *Aliens*, amongst many others.

sees the 'DOA 2001' robot, indicating that the true climax of the film is the elevation of the hero-stars as the repeatable value of the sequels rather than the narrative arc that leads to the defeat of the antagonist, who only exists to facilitate this elevation. Each of these endings extends the defining concept of the film's procedural info-narrative to the point of hypertrophy. In *Dead or Alive* the sole function of the cop and robber in the crime film, to eliminate the other, leads to the world ceasing to exist upon their mutual destruction. In *Dead or Alive 2*, the role of the protagonists as 'best friends' reunited, and the role of the actors as stars returning for the sequel, keeps the bodies of the characters alive and delivering lines of dialogue as if unharmed long after they have clearly been 'killed.' In *Dead or Alive 3* the accrued power of three sequels sees the characters merge into an unstoppable machine bearing the initials of the trilogy as a serial number, as the formal language of actor-character function in the direct-to-video sequel series finally becomes foregrounded in the storytelling apparatus.

Narrative indifference

It must be noted that in Miike's films noise is specifically noteworthy because of the way it occurs within otherwise communicative informatic processes. The algorithmic mode of narrative that is central to control-era major production is always a structuring element in the films; this is the case to the point that at times its processes are, paradoxically, foregrounded by the degree of noise they contain. When the story algorithm of a control-era major work continues to move the plot forward even when the content fails to make clearly communicable sense, as is the case with in the above-discussed ending of *Dead or Alive 2,* then it ceases to be a subtle, invisible

process and becomes foregrounded.[103] This process can be seen at a highly developed level in Miike's film *Gozu*, subtitled 'The Yakuza Horror Theatre.' Despite the suggestion of this subtitle that the film will occupy the two predominant control-era video genres of action and horror, what *Gozu* actually presents is a quest narrative, the most simple of story algorithms, that is rendered unworkably noisy by the unworkable relationships between its protagonist and every other character.[104]

In *Gozu* a young gangster, Minami, is instructed to kill off his friend Ozaki, another yakuza, because of his increasingly erratic behaviour. While driving into the countryside to carry out the deed, and agonising over killing a man he looks up to as an older-brother figure, Minami crashes the car when the road abruptly ends in a river, apparently causing Ozaki to die accidentally. Soon afterwards, the body disappears from the car when Minami stops at a diner to phone his boss, and the remainder of the film consists of a search for Ozaki that becomes interminable. The suburb that Ozaki stops in is an explicitly typical horror location, rainy, isolated and populated solely by individuals who seem to encroach upon and threaten the hero. What becomes apparent as the narrative progresses is that these characters are, for the most part, less threatening than entirely disinterested in the hero's journey. Rather than the hero himself, it is the narrative function of his quest that they threaten by failing to assume any kind of structural relationship to it. Miike, speaking of the film's characters, states that:

> None of the characters in that film are considerate or kind. Characters usually exist only for the purpose of the film. They're cooperating with it, you might say, by playing various roles – the guy who helps the hero, the guy who opposes him. But in *Gozu* they could all care less (about the hero). They have no relationship to him…But those people exist in a city. For me they're more real than characters who

[103] To reinforce this point it should be noted that sequences of characters continuing to proceed through their plot arc even when obviously dead are recurring in Miike's work; as well as *Dead or Alive 2* this can be seen in *Graveyard of Honour* and the television series *Tennen Shôjo Mann Next* (1999).
[104] The Yakuza genre is Japan's most widespread contemporary action genre, exemplified by the films of John Woo (*A Better Tomorrow* [1986], *The Killer* [1989], *Hard Boiled* [1992).

> only exist for the purpose of the movie. They have their own concerns – and the hero is not one of them.[105]

The disjunction between the action on the screen and the expectations of a 'quest' story as set up by the opening are the source of the "horror" part of the film's subtitle.

Gozu passes through each of the steps required of its quest story algorithm, from the establishment of the object or person (Ozaki) to be quested for to a final confrontation with the boss who instructed him to kill his friend and set the entire chain of events moving, passing through some set-piece events to add a degree of interest and sophistication. What it does not do is connect these steps with the required causal encounters with other objects or characters, causing the narrative algorithm to technically function correctly but to proceed, from the perspective of the end user, by apparently random information rather than through the protagonist-led interface of major story. Michael Joshua Rowin points out that in this respect *Gozu* is like a children's story because its depicted events correspond to the necessary points of a functional story but do not seem to follow any kind of continuity.

> The term juvenile would seem to be too pejorative, but I challenge anyone to use another word to capture the essence of *Gozu*, a film predicated on a structure reminiscent of the storytelling techniques of schoolchildren, where this and then this and then this happens according to a strictly preconscious continuity of meaning: 'The man was licked by a man-cow in underwear and when he woke up he found a message contained in a leather pouch which told him to drive to a wrecking yard where he met a woman who said she was the man's male friend …'[106]

Gozu, then, is procedural but without the overlying elements of character-driven causality that ought to exist within even the most basic, direct-to-video action or horror film. In both classical and info-narrative non-protagonist characters essentially serve as bodies of information relevant to the protagonist's journey, but in *Gozu* the viewer is presented with a journey that lacks these bodies of relevant information but

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[105] Mark Schilling, 'Anything Goes', http://search.japantimes.co.jp/cgi-bin/ff20030723a1.html. Last accessed 1906/09.
[106] Michael Joshua Rowin, 'Impressions of a Dangerous Mind', http://www.reverseshot.com/legacy/autumn04/gozu.html. Last accessed 19/06/09.

that nonetheless continues to function. This information is thus shown to be structurally unimportant in control-era narrative, and at the same time culturally essential in making the story process appear natural – a clear correspondence with the "benign interactions" in Chun's reading of software. In *The Laws of Cool* Alan Liu suggests, of the digital art duo Jodi's irregularly-functioning software, that the duo is engaged in making "scary browsers."[107] Jodi's browsers are scary not because they don't work, but because they appear to be working under their own logic, in ways that do not correspond to the user's expectations and requirements. There are processes running, but they run according to a logic that does not exactly correspond to the user requirements of intelligibility and instrumentality. In the same way, Miike's *Gozu* is "scary" – and therefore "horror" – in the control era because it is procedural but does not pass between its individual steps in an intelligible way. As suggested in the readings of Beckett and *The Blair Witch Project* in Chapter 5 and *Halloween* in Chapter 7, in the control era what is "scary" is missing information or unworkable processes that demonstrably do not impact on indifferent machine function but that impair user experience.

What this also suggests, as hinted at throughout this thesis, is that counter practice within the major forms of the control era may have to be *boring*. This is the natural outcome of work that replaces sabotage, entropy and spectacle with subtle, informatic processes, and can already be grasped at through the minor function of nonexistence that develops through Beckett and *Halloween*, to choose only the examples examined at length in this thesis. It is also a close correlative of indifference, the lack of a selective logic over information. This is supported by Miike's descriptions of *Gozu* to Mark Schilling:

> It's a road movie, about a guy who doesn't know what to do. He searches for a body and ends up in a place that baffles him. I wanted the audience to experience the

[107] Alan Liu, *The Laws of Cool*, p.358.

> hero's journey in, not movie time, but in real-time, just as he would, though they may find it a little boring...Anyone could have the same sort of experience if they were to get off the train at a strange station. They would enter a different world – maybe not the same one that exists in the film, but if they were to ask strangers "Where is my *aniki* [older brother]?" they might get the same reaction the hero does.[108]

In *Gozu* the executive progression of the quest narrative and the control-era action or horror story is made "boring" through the removal of structurally-effective characters who would usually serve to provide exposition and move the story along. That this does not affect the overall arc of the plot is the crucial aspect in terms of the film's minor informatics, the way it is able to create a minor space within major form. The algorithmic story processes of the control era are robust enough to accommodate a high coefficient of noise without failing, but this noise causes the executive nature of the underlying structures to be foregrounded. This narrative procedure is similarly effected on genre in Miike's work: *Audition*, his most well-known film internationally, moves from rom-com to horror not to create a sensational twist or to confound audience expectations but to demonstrate the way that, in commercial control-era info-narrative, the story algorithm remains identical across even the most diametrically opposed of genres in terms of content.

Indifference and genre

Miike's *Audition* is the first of his films to bring him international recognition, although it is his 22nd feature film, not counting the early direct-to-video works. On the surface, *Audition* is a film that centres on the violation of apparently incompatible genres, the romantic comedy of the first two-thirds being overrun by the violent horror of its ending, but at a formal level the film retains an abstract consistency of character and plot that prevents the film from being a simple destruction of genre. The basic story arc concerns Aoyama, a successful video producer and lonely

[108] Schilling, 'Anything Goes'.

widower who, faced with the difficulty of finding a new partner but wanting to remarry, holds an audition for a fake film project in order to take his pick from a number of eligible women. Finding the 'perfect' girl, he embarks on an awkward relationship with her, but at the point in a standard rom-com where the characters finally consummate their relationship the film pitches into the horrific. Asami, the protagonist's 'perfect' partner, is revealed to be a violent killer with several victims already behind her. From the point of this revelation the form and visual aspects of the film deviate from the functional simplicity of its first two-thirds, abandoning continuity editing and employing severe unnatural colour filters and conspicuously harsh, artificial sound design amongst other signifiers of disorder. Steffen Hantke, in 'Japanese Horror Under Western Eyes', notes that "reviewers complain about the lack of visual novelty and adventurousness"[109] in the first two-thirds of *Audition*. This "lack of visual novelty" is in fact a doubly essential part of the overall work, not only providing a counterpoint to the visual and narrative disorder of the concluding third of the film but allowing this counterpoint to foreground the ways in which the latter functions on an identical story algorithm to the former, with only the overlying content and visuals changing.

This base-algorithm identification presented analogically in an early scene in *Audition* where the protagonist and his son eat sea bream. As the pair discuss relationships the younger man states that the fish in question are all born male, sexual variation arising as they grow bigger. This serves as a clear analogue for the film's relationship with narrative, in which two apparently opposing genres are shown to be derived from an identical underlying informatic (or genetic) arc. The difference in content and visuality between the two parts of *Audition* is so marked that for many viewers the film appears to be primarily an exercise in the dovetailing of opposing

[109] Steffen Hantke, 'Japanese Horror under Western Eyes', *Japanese Horror Cinema* p.56.

genres to create disjunction.[110] Conversely, when examined at the level of story algorithm what Miike creates is a consistent underlying form, with distinction taking place at the levels of content and visuality. The basic procedural arc of *Audition* is as follows: Aoyama meets the 'perfect girl', under false pretences or from a socially unequal position, due to the encouragement of a less sensitively portrayed male sidekick; the couple get to know each other and they begin to fall in love; just as everything seems to be perfect, something goes wrong. This is the story algorithm for multiple romantic comedies produced in the control-era Hollywood system.[111] The major distinction is that in the rom-com the "something" that goes wrong would be the discovery of the male suitor's initial dishonesty, and the ultimate resolution would be the reconciliation of the lovers, whereas in *Audition* the deception is never revealed, and its narrative function is replaced with the revelation of Asami's dangerous nature. The seamless (at the level of underlying process) continuation of rom-com into violent horror is exemplified by the final moments of the film which sees the pair reconciled in death, presenting a composite of the rom-com ending in which the pair end up together and the slasher ending in which a protagonist struggles with and ultimately kills an antagonist.

In his analysis of *Audition* Mes, like the reviewers examined by Hantke, focuses on the ways in which the change of register is destructive and spectacular. This type of reading, in attempting to consider the film as acting *against* major form, fails to take into account Miike's industrial background in control-era genre production. The director's command of the technicalities of info-narrative allow him to create a

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[110] For a survey of critical responses to *Audition*, almost all of which focus on the apparent switch of genre, see Hantke pp.55-57.

[111] Films featuring this exact story algorithm with a broad variety of overlaying distinction are many; notable examples include *Pretty Woman* (1990), *Groundhog Day* (1993), *Notting Hill* (1999), *What Women Want* (2000) and *The 40-Year-Old Virgin* (2005). As is the case with the slasher film, the same algorithm at a lower level of distinction can be seen in films targeted at a teenage audience such as *Can't Buy Me Love* (1987), *10 Things I Hate About You* and *She's All That* (1999) and *She's The Man* (2006) amongst many others.

change of register that is conjunctive, adhering to the underlying narrative algorithm while changing the surface aspects of genre, content and visual style. The steps by which someone beat someone else, or in this case the steps by which a pair of people meet, fall in love, something goes wrong and they are finally reunited remains the narrative structure of *Audition* even after the character relations, and visual aspects change significantly. The film is an example of the way in which the abstractions of info-narrative lend themselves to the insertion of noise in a way that is hypertrophic rather than resistive, and that functions in a way that retains the algorithmic framework of major cultural production.

It is not a denial of the algorithm's efficacy that constitutes a control-era minor practice but the location of possible exploits within it. Miike's work, in the way it abstracts the indifference and boredom of undecidable information from the definitively efficient and spectacular technics of control-era commercial production, provides a number of prospective visual and narrative tactics. In deploying undecidable or unmeasurably important data within a technically-virtuous application of control-era major production, and in doing so without creating any kind of spectacle of entropy or disorder that could be recast as talent or disciplinary auteurship, Miike presents a number of prospective conditions for a contemporary minor practice. Going on from here, in order to grasp at further prospects for minor practice it is now essential to look beyond the cultural forms that the control society takes over and abstracts through the conditions of the digital and examine its native cultural form, the videogame. The final chapter of this thesis looks at prospective modes of alternative play within the coded restrictions of the game in order to determine the conditions of counter-practice that might shed further light on the cultural politics of execution that are definitive of control.

Chapter 10: Videogames and Minor Practice

In the preceding chapters I have examined the emergent conditions of a prospective counter-practice largely as it relates to the changing dimensions of disciplinary-era forms as they are colonised (to apply Wark's term) by the control era. Having established, following Lovink and Schneider, the way in which the preceding spectacular aspects of both major and minor practice become underpinned and intermediated by "subtle processes and feedback loops" in the control era, I now move on to examine the emblematic commercial media form of control, the videogame. This may appear something of a departure from the preceding studies of older media for several reasons, the most obvious being that the game is an active rather than passive medium because it requires user input.[112] This distinction, however, is not fatal to the congruent cultural study of games alongside film, literature and art in the control era – in fact, the abstracted consistency of the apparently distinct media is crucial to a proper grasp of the function of cultural objects under control. Following Wark I argue that because the terms of the game colonise and transform the terms of the older forms in the control era, an examination of the function of games yields crucial insight into the present function of those older forms in terms of both major and minor practice.[113] The algorithmic narrative that I examine through the preceding chapters as emerging in major control-era film practice is actually a passive and therefore slightly faulty manifestation of the experiential game narrative. The problems that Jameson identifies in Propp's formalised narrative procedure of 1928, that it produces narratives that both "fail to attain an adequate level of abstraction" and are "not yet meaningful enough" are

[112] As Galloway puts it, "[i]f photographs are images, and films are moving images, then *video games are actions*." Alexander R. Galloway, *Gaming*, p.2.
[113] "It is not a question of adding games at the tail end of a history of forms but of rethinking the whole of cultural history after the digital game." McKenzie Wark, *Gamer Theory*, paragraph 225.

solved without concession in the videogame that both abstracts story into a series of steps without impairing the user experience and manages, through the necessity of user action and the provision of goals at diegetic and extradiegetic levels, to invest these steps with 'meaning.'[114] This is the procedure that major control-era film practice attempts but in doing so always leaves gaps or prospective exploits, as seen in *Twin Peaks* and the work of Takashi Miike, as a result of the disjunction between classical narrative construction and the contemporary algorithmic form that is definitive of control-era cultural production.

In establishing the terms of distinction and similarity between the game and the "colonised" older forms it is useful to return to Lev Manovich's statement, cited in Chapter 1 of this thesis. Manovich states that "in contrast to the cinema, where most 'users' are able to 'understand' cinematic language but not 'speak' it (i.e. make films), all computer users can speak the language of the interface."[115] Previously I queried this statement by likening the ability to "understand" the language of the film interface to the ability to enter the cinema, buy a ticket then look at the screen, or rent a DVD, turn on the player, insert the disc and look at the television or monitor – and in both cases to interpret the images and sounds that are presented. Games add the cinema interface to the computer interface, for the most part requiring both the interpretation of cultural information and the provision of feedback. This is why games are the emblematic cultural form of control; they adhere to the executive code, algorithm (story) and visuality triumvirate of control-era major practice without requiring the convoluted and unstable maintenance of elements to provide continuity with the modes of their preceding era. This is summed up by Galloway in *Gaming* when he states that:

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[114] Fredric Jameson, *The Political Unconscious*, p.108.
[115] Lev Manovich, *The Language of New Media*, p.xv.

> what is so interesting about computer games is that they essentially invert film's political conundrum, leading to almost exactly the opposite scenario. Video games don't attempt to hide informatic control; they flaunt it…To play the game means to play the code of the game. To win means to know the system. And thus to interpret a game means to interpret its algorithm.[116]

As such, the foregrounded algorithmic processes of videogames make them a highly productive source of prospective minor practice. Following this, any practice that is able to locate and execute exploits within the near-total informatic control of the videogame will be crucial to the lexicon of contemporary counter-practice.

Within the existing critical discourse on videogames much time is given to the delineation of the medium as both a serious area of study and one that is entirely distinct from older media and especially film.[117] Outside of these disciplinary squabbles, however, it is essential to note that games are suspended between a technical dimension that is closely and explicitly connected to the computer and a cultural dimension that refers to and borrows from older narrative media. As Jesper Juul demonstrates in Chapter 5 of *Half-Real,* in computer games there are always at least two stories going alongside each other.[118]

The 'external' story of the game is constructed through graphical representation and (in older examples) textual description and supplemented with introductory sequences, in-game cutscenes and further text provided in the manual and on the back of the box. This aspect of the game is more or less related to older cultural forms such as the cinema, and even in the most abstract cases obeys fundamental principles of perspective and logic that will be familiar to the player; to take *Tetris* (1984) as an example, despite the highly abstract world the game represents the bricks always fit the spaces depicted on the screen, always fall downwards, rotate left or right when the

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[116] Galloway, *Gaming*, pp.90-1. Ellipses mine.
[117] Amongst the most notable examples of these works are Espen Aarsth's *Cybertext* and Jesper Juul's *Half-Real* (Cambridge: The MIT Press, 2005). Noah Wardrip-Fruin and Pat Harrigan's 2004 collection *First Person* (Cambridge: The MIT Press, 2006), focuses on issues surrounding gaming and older storytelling media, and contains essays by both Aarseth and Juul amongst many others.
[118] See in particular Juul, *Half-Real* chapter 5, 'Rules and Fiction', for a lengthy discussion of the interplay between these two types of story in games.

player presses the corresponding direction or action control. This is what makes the game *playable*, and as such allows it to present a narrative of representations and actions to the user. Alongside this runs the story of the playing, a narrative that is pieced together out of action, experience, frustration and imagining as the player makes his or her way through the game itself. Although no such connection is materially necessary for the game to exist, this second narrative responds to the represented story of the game but is reliant on the code to correlate user experience to represented world. Furthermore, the actions that constitute play are most likely carried out a number of times in order to complete a particular level or section; unlike the broadcast soap opera, games are necessarily reversible as a condition of the user experience they provide.[119]

This double narrative function is central to Manovich's approach to games in *The Language of New Media*, where he notes that they consist of a "narrative shell" concealing a simple algorithm that becomes, through play, "well familiar to the player."[120] To connect these two narrative dimensions of gaming through a single, well-known example, when the player begins a game of *Super Mario Bros* (1985) for the NES they view a screen with the title of the game and the option to select one or two-player mode, and upon selecting one of these options the game begins with its blue sky, bricks, turtles, mushrooms and so on.[121] There is no point within the game

[119] See Steven Poole, *Trigger Happy* (London: Fourth Estate, 2000), pp.109-114 for more on the impact of repeated run-throughs of levels on videogame narrative.
[120] Manovich, *The Language of New Media*, p.222.
[121] Given the fundamental, technical similarity between all videogames at the level of code and algorithm, regardless of the increasing sophistication of graphics, narrative and gameplay added as the medium develops, I draw my examples for game mechanics from early examples purely due to the relative visibility of their algorithmic makeup. Although focussed on a somewhat more advanced period than that of *Super Mario Bros* McKenzie Wark discusses the value of using early games in *Gamer Theory*, speculating that "perhaps the single-player game will become an anachronism, superseded by multiplayer worlds as venal and benighted as the rest of gamespace. Perhaps, like silent cinema, the stand-alone game will be an orphaned form. Perhaps game designers such as Will Wright and Tetsuya Mizugushi will be the Sergei Eisensteins and Dziga Vertovs of a lost art. Perhaps, in this moment of eclipse, the classic games have something to show us." Wark, *Gamer Theory*, paragraph 025.

at which the player is given a narrative motivation to play beyond the completion of the various tasks it sets. One has to read the manual to learn the 'plot' of the game:

> One day the kingdom of the peaceful mushroom people was invaded by the Koopa, a tribe of turtles famous for their black magic. The quiet, peace-loving Mushroom People were turned into mere stones, bricks and even field horse-hair plants, and the Mushroom Kingdom fell into ruin.
>
> The only one who can undo the magic spell on the Mushroom People and return them to their normal selves is the Princess Toadstool, the daughter of the Mushroom King. Unfortunately, she is presently in the hands of the great Koopa turtle king.
>
> Mario, the hero of this story (maybe) hears about the Mushroom People's plight and sets out on a quest to free the Mushroom Princess from the evil Koopa and restore the fallen kingdom of the Mushroom People.
>
> You are Mario! It's up to you to save the Mushroom People from the black magic of the Koopa![122]

The diegetic narrative faced in completing a level of *Super Mario Bros* relates not to this plot but to the game's algorithm; the positions and movements of the enemies and the length and pattern of movements, for example. There is nothing that guarantees the connection between the formal and the representational aspects of the game, but while the algorithmic function could easily be removed from the cultural layer (i.e. the player gets to the end of the game and finds there is no princess to rescue) with no real impact on the user experience, the reverse (i.e. the controls do not correspond the represented world in any instrumental way, or there are jumps that are too wide to be traversable) would make the game unplayable. This clearly resonates with the suggestion, set out in the preceding chapters, that the market success of the special-effects blockbuster and the low-budget, direct-to-video slasher demonstrate the way in which negative effects of algorithmic narrative on classical notions of plot do not

[122] 'Object of the Game/Game Description' from the manual of *Super Mario Bros* (1985). A PDF of this manual can be downloaded from http://www.replacementdocs.com/download.php?view.3318. Last accessed 29/06/09.

translate to user dissatisfaction in the control era; only the incorrect or unexpected function of the algorithm has that effect.

It is the learning of orders and the feedback loop of image, reflexes and user input that underlie the motivation to continue playing, so to play a game in any way is to directly access the underlying algorithmic structures that now underpin all commercial narrative modes. The end user is never thinking about being Mario and rescuing the princess when we are negotiating a series of awkward and demanding jumps for the twentieth time, but the game world in some way maintains that they are. The player character is also never really dead, as far as the game goes, when they fail with these jumps, but are dragged back in the internal narrative, time looping back and the level starting again with everything back the way it was.[123]

This indifference to the narrative function of finitude is one point at which a line of algorithmic narrative can be drawn through Beckett, Miike and the videogame. In each instance the world that constitutes the object's narrative is shown to follow a machinic, looping logic rather than a human-centred, arcing one. In Beckett's *Quad*, the emblematic work of language III, the players follow predetermined paths that are unaffected by any object or change within the diegetic world. In Miike characters and storylines continue on genre-determined paths irrespective of the degree of noise that exists within the individual points of this path – a clear example being the way in which the protagonists of *Dead or Alive 2* make a journey and deliver dialogue as necessitated by the plot even after being obviously killed. In videogames a regular occurrence is the moment, immediately following the death of the player character, in which NPC's (Non Player Characters) continue to act as if the player character is still alive, following their programmed paths (e.g. *Super Mario Bros*) or attacking the player's dead body (*Doom*, *Serious Sam*). Where the form of disciplinary narrative

[123] See Jesper Juul, 'Introduction to Game Time', *First Person*, pp.131-141.

and those that precede it is the arc, and is therefore limited by time, the corresponding form in the control era is the loop, and continues until the specific ending conditions are met or the medium is switched off.

The machinic nature of videogame play, where code and algorithms are literal as opposed to (or as well as) allegorical, is demonstrated most clearly when one tries to explore alternate possibilities within a game. While it is possible to ignore the obvious rules that govern the progression through a game and to instead try and find ways to play it against itself, this can only be possible within coded constraints. This is why games serve, as they do in Chapter 1 of this thesis, as a highly instructive model of the control society in general. The crucial limitations on the cultural experience of game playing are not on expression or interpretation, but on possibility. As Juul states, irrespective of their technical aptitude "[t]he player cannot lie down, do handstands or simply leave the playing field in *Fifa 2002* or *Virtua Tennis*."[124] This is why finding ways to if not lie down or do handstands then at least deploy the coded limitations of the game engine in ways that differ from those intended at their design and programming are particularly instructive in thinking towards control-era minor tactics.

The upshot of the demonstratively algorithmic makeup of gameplay is that it foregrounds the way in which execution replaces interpretation as the predominant experiential mode of the control era. There is no extreme way of reading a game that changes the fact that, as Cory Arcangel has made clear through his experiments with the 6502 assembly code in which Nintendo's NES cartridges are written. The blueness of the sky and the whiteness of the clouds in *Super Mario Brothers* exist because of the following expression:

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[124] Juul, *Half-Real*, p.170.

```
++++++++++++++++++++++++++++++++++++++++++++++++++++++++
;load palette
;++++++++++++++++++++++++++++++++++++++++++++++++++++++++

lda #$3F ; NES background palette location
sta $2006
lda #$00
sta $2006

lda #$21 ;background [powder blue]
sta $2007
lda #$30 ;cloud inside [white]
sta $2007
lda #$11 ; highlight [blue]
sta $2007
lda #$0d ;outline [black]
sta $2007
```
[125]

To interact with this machinic component the player must input movements in a sequence on the game controller. While the system's responses to the controller input are coded, the temporal and sequential specifics of these movements cannot be – they rely on user input, although as noted above the lack of this input does not necessarily preclude the game world and non-player characters from continuing their programmed behaviour. Unlike major control-era film practice, where narrative is executive and unmanipulable (except, as noted above, through the controls on the DVD player of the physical mode of addressing the screen) in games the narrative is divided between algorithm and user input, relying on the foregrounded informatic control of the game code to confine play to the intended paths. To this end, anything that is *possible* within the confines of a specific game is *allowed*, and this limited possibility is what enables games to serve as both a model of control and a source of prospective minor tactics. From this point I will examine a pair of approaches to videogame use that attempt to exert possibilities unintended at the design stage of the game. The first practice, the rewriting of game code by artists, engages with the

[125] Cory Arcangel, 'Super Mario Clouds – 2005 rewrite', at http://www.beigerecords.com/cory/Things_I_Made_in_2003/. Last accessed 12/08/08.

visual and code aspects of the game, while the second, speedrunning, does not involve any programming and engages with the visual and narrative aspects of the game.

Game art

Given the predominantly experiential dimension of game narrative discussed above, and the role of games as native to the period of the control society, it is unsurprising that a number of recent visual artists take games as the source of their work. In this section I am specifically interested in examples drawn from the small subsection of game art that manipulates hardware and code, the technical elements of commercial games, in order to produce results not intended at their design and production stages.[126]

Much of Cory Arcangel's work involves the direct manipulation of game hardware, or more accurately two distinct manipulations, one of hardware and one of the game code that these cartridges hold. In creating works such as *I Shot Andy Warhol* (2002), *Super Mario Clouds* (2002), *F1 Racer Mod* (2004) and *Super Mario Movie* (2005) he removes a chip from a cartridge, most often for the Nintendo's NES console, manually writes and burns assembly code to a new chip and resolders it into the cartridge, allowing the final work to be projected through the original system.[127]

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[126] For a substantial archive of game art see http://www.selectparks.net/archive/sp5.htm, last accessed 02/07/09. For a similar archive concerned specifically with modifications of the first-person shooter game see http://maia.enge.li/gamezone/taxonomy.html, last accessed 02/07/09. For a survey of the various practices comprising the broad genre of game art that modifies existing games see Rebecca Cannon, 'Introduction to Game Modification', http://web.archive.org/web/20040309221102/http://www.dlux.org.au/plaything/media/rebecca_cannon_web.pdf, last accessed 01/07/09. For a discussion of the identifications between game art and early video art see 'Do It 2', a conversation between Cory Arcangel and Dara Birnbaum in the March 2009 issue of *Artforum*. For a discussion of many of the conceptual issues relating to game art from a practitioner's perspective see Brody Condon, 'Where do Virtual Corpses go', http://www.cosignconference.org/downloads/papers/condon_cosign_2002.pdf, last accessed 02/07/09.

[127] This methodology is closely related to the practice of ASM (assembly) hacking in certain gamer communities. ASM hacking is a sub-practice of ROM hacking, which refers to the modification of game code in order to add new graphics, change level design, edit properties of characters or objects or provide fan-made translations of text, each in order to add new aspects to existing games. See

The choice of the NES is interesting here for a number of reasons. Firstly, because it is an obsolete format whose reinvigoration through art objects foregrounds the industry-driven, enforcedly premature disposability of digital technology. Secondly, because as Critical Art Ensemble note in the chapter of *Digital Resistance* that recommends similar projects for the Gameboy platform, due to "Nintendo's obsession with stopping piracy and reverse-engineering of its products" such projects "help demonstrate that no product is perfectly fortified, no matter how many precautions are taken."[128] Finally, because the games are written in assembly language, in this case 6502 assembly, rather than a high-level language. What is crucial about assembly languages, compared to more common, high-level programming languages, is that they consist of sets of mnemonics that correspond directly to the binary variations of 1's and 0's that the system hardware reads as voltage differences. As Arcangel himself puts it, "I tend to prefer assembly because it gives me control over the machine and assures me that aesthetic choices are based on the hardware of the machine and not, say, some dupe at Macromedia."[129] To write, as Arcangel does, in assembly is to come in as close proximity to the computer hardware as possible while programming, without writing binary. In the works that result from his process he does not create the possibility for a new type of gaming, or a new commercial application of the NES, but instead a reapplication of its existing technical function.

Each NES cartridge contains a CHR chip, which holds all of the graphics, and a PRG chip, which tells the graphics where and when to appear. By replacing either or both with his own, newly written chips, Arcangel is able to make the game act in novel ways without any tampering with the designed functionality of the hardware.

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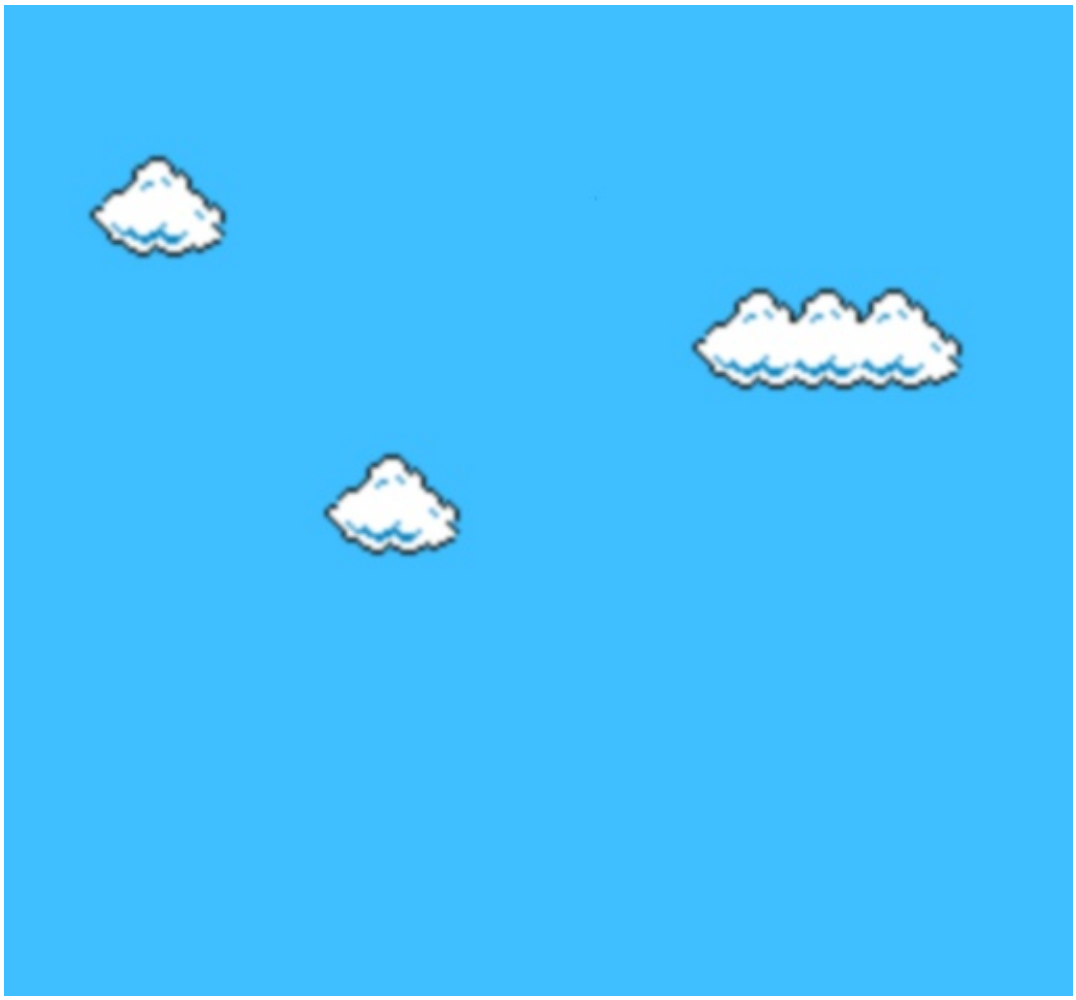
http://www.romhacking.net/ for a comprehensive list of techniques, programs and documents relating to ROM hacking, as well as numerous examples of existing hacks. Last accessed 01/07/09.

[128] Critical Art Ensemble, *Digital Resistance*, p. 134.

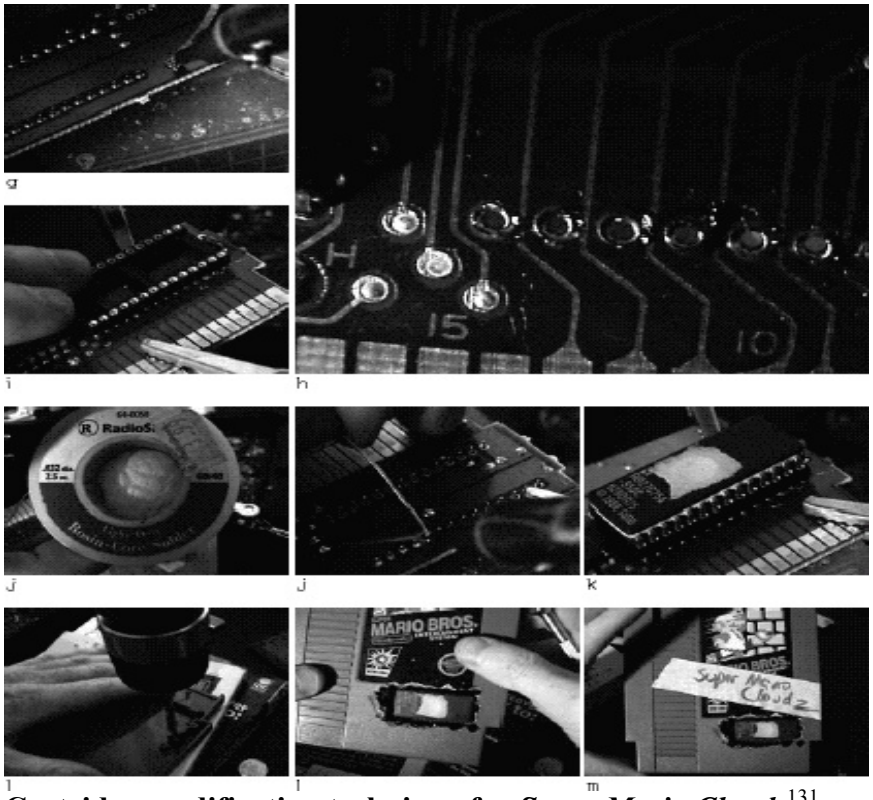
[129] Cory Arcangel, *'Super Mario Clouds*: 2005 rewrite, http://www.beigerecords.com/cory/Things_I_Made_in_2003/. Last accessed 29/06/09.

Super Mario Clouds, for example, relies on the pre-programmed graphics contained within the CHR chip of the commercial game cartridge, with Arcangel's newly-written PRG chip simply telling the game console to put these graphical elements in particular orders. This technical process is as important as the visual output of the work. As Arcangel himself admits, "to make something that looks similar [to *Super Mario Clouds*] on a modern computer would take about 3 minutes in PhotoShop."[130]



Cory Arcangel, *Super Mario Clouds* (2002)

[130] *Ibid.* In a separate interview at 'Digital Tools' Arcangel outlines his incapacity for using Photoshop: "I have such a hard time with it, and can barely accomplish anything with it. It's always telling me some layer is locked or needs to be rastered or whatever there is. Half of the time the things I am trying to accomplish don't happen 'cause I am so stupid and bad at it. I am serious here, but I can't figure out how to draw a line. I don't think I have the right 'line module' so every time I try to draw a line it comes an arrow. And when I try to switch the line preset it says I only have the arrow available." Interview by Martin Wisniowski, at http://digitaltools.node3000.com/interview/interview_cory_arcangel.php. Last accessed 28/06/09.



Cartridge modification technique for *Super Mario Clouds*[131]

It is the kind of technical virtuosity that is not recognised industrially as talent that underpins Arcangel's work. He is influenced by other new media artists such as Jodi, but also by 'hobbyists', home programmers who hack proprietary technologies to enable new possibilities in spite of the designed limitations that are central to the political and commercial models of control. Arcangel explains that:

> [i]n my opinion these [hobbyists] are the true heroes of contemporary computer art. Out of the hobby scene have come portable PlayStations, Dreamcasts that boot LINUX, and even hard drives that play music by spinning at different speeds.[132]

Arcangel's approach can be seen moving beyond the early videogame into a more recent set of pieces that address the relationship between technology that is designed and constructed to behave in one specific way and its users. For the video piece *Sans Simon* (2005) Arcangel presents a camcorder recording of a televised Simon and

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[131] Image from Cory Arcangel, *'Super Mario Clouds*.

[132] *Ibid.* Also see 'Legacy Hackster', an interview with Arcangel in which he discusses home mechanics that modify the chips in their cars to improve acceleration and speed, and attending a lock-picking conference. Both represent parallels to not only Arcangel's own work but the broader ethics of hacking as technical virtuosity as separate from talent that are crucial to the control-era counter-practitioner. http://www.petitemort.org/issue01/02.shtml, last accessed 28/06/09.

Garfunkel performance in which he places his hands between camera and screen in a vain attempt to keep Paul Simon covered throughout. *Plasma Screen Burn* (2007) exploits a technical flaw of plasma screen monitors whereby any non-moving image left on the screen too long becomes physically burned onto the surface due to the light-emitting phosphor compounds that enable the technology to function losing their luminosity through over-use. *Two Keystoned Projectors (one upside down)* (2007) exploits the characteristic of screen projection whereby, if placed too low on the vertical axis in relation to the projection surface, they become 'keystoned', resulting in the rectangular aspect ratio being distorted into a trapezoid. Each of these recent works reflects a simplification of Arcangel's central concern, the hierarchical relationship between form, medium and user. They highlight simple ways in which 'misuse', or non-designed use, of technology that is designed to function in only one way can result in new creative possibilities. These later works are particularly effective *alongside* the older hacked videogame works because there is a functional analogue between the light in a television or projector and the code of a piece of hardware or software. In both cases an invisible language underpins a visible one, and in collapsing these distinctions Arcangel suggests a possible future where manipulating code is as simple and accessible as placing one's hands in between camera and screen.

It is this intended ease of potential participation that underlines much of Arcangel's work, and that is central to its role as a prospective source of counter-tactics. As well as giving away both the method and the assembly code for most of his coded works, he makes it clear on the *Super Mario Clouds* documentation page that the code is itself borrowed and modified from the website of a hobbyist programmer, Chris Covell. Covell is an example of the hobbyist who exists between the technically virtuous user and the talent of the commercially defined programmer;

he exhibits a high level of technical virtuosity, but gives away not only the resultant products but also the methods and source code of his work. He writes programs, games and hacks for obsolete systems such as the NES, and it is from the free sharing of his applications and source code that Arcangel is able to obtain the crucial elements to build works such as *Super Mario Clouds*. This kind of free accessibility of method and code shows one possible movement towards the possibility for alternate game use amongst the world of users, the making available of programming methods and structures to the non-programmer. Significantly, the specific platform he manipulates in each work can register no definitive technical difference as a result of his tampering; by replacing chips in NES cartridges, he allows the system to function as normal, in every technical sense, while producing an output that is distinct from that intended by the game designers.

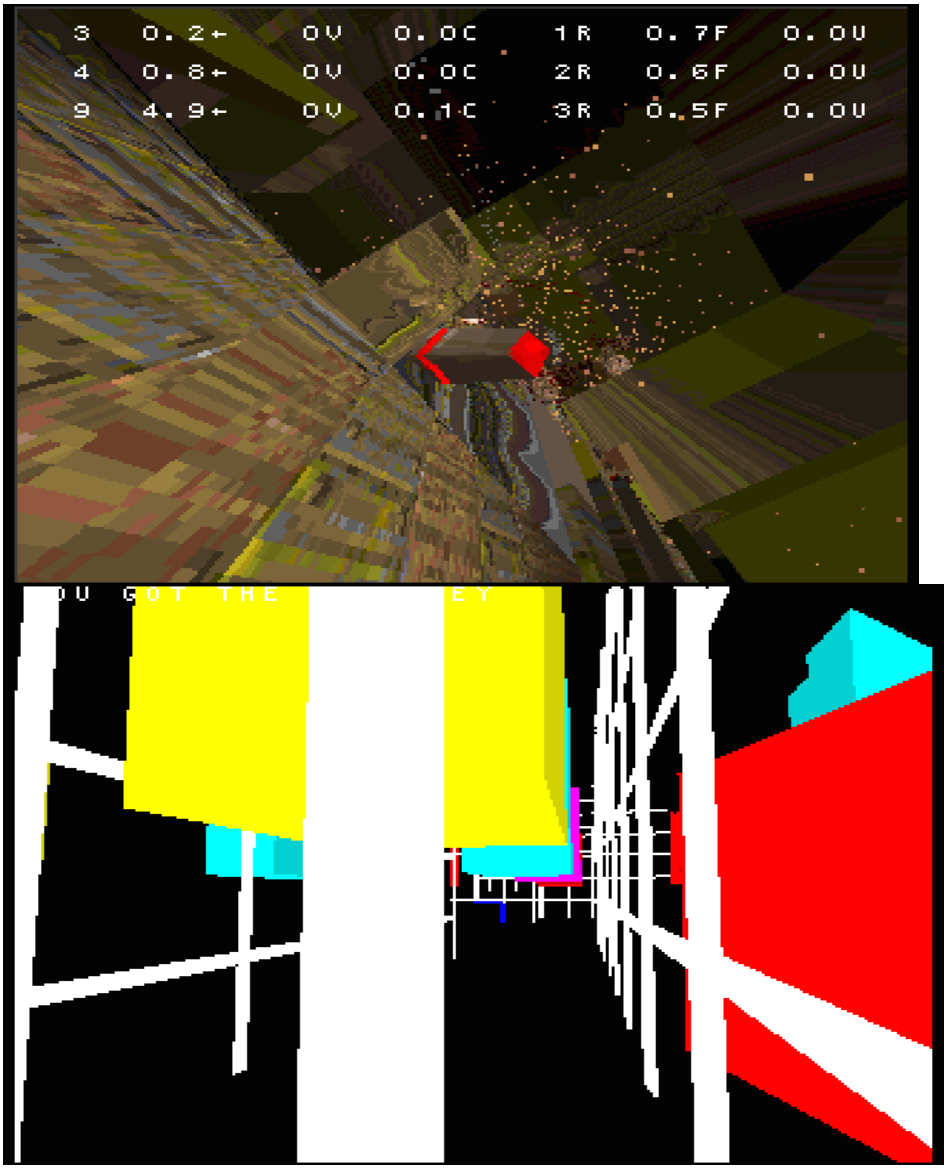
In terms of the games system, running *Super Mario Clouds*, *F1 Racer Mod* or *I Shot Andy Warhol* is no different to running any regular, commercial cartridge. It is the modified game object's avoidance of being registered as measurably different from the original that makes Arcangel's work suggestive in terms of contemporary minor practice. There is, however, still a level of technical difficulty associated with such work that creates an obstacle to its broad application. Ultimately, the practical distinction between assembly languages and higher-level languages for the user are limited, despite Kittler's insistences, since both require learning and, at the bottom line, execute physical action at the hardware level. There remains a gap between the everyday ability to place hand between light source and projector screen and the everyday ability to write low *or* high-level programming languages that is a current impediment. In terms of Manovich's problematic distinction between the interface of cinema and that of new media in relation to the user, the game art practice carried out by Arcangel is akin to physically manipulating or reediting a film to create a new

visual and experiential object, an aspect of his work that is foregrounded by the more recent non-game pieces.

This is not to say that the possibility of user input is all that separates Arcangel's work from being a complete model of minor practice; *I Shot Andy Warhol* includes such an input (the NES light gun) but still fails to engage with the narrative conditions that are central to the role of the game in the control era. Jodi, whose early net and desktop works make the user comfort of computer GUI's "scary", have reworked the source code of several games to implement a similar noisy effect on their user experience. *Jet Set Willy Variations 1984* (2002) consists of ten reworkings of the ZX Spectrum game written in BASIC, one of the earliest programming languages for the home user, which preserve the simplistic controls but remake the graphics into abstractions of colour or form. *untitled game* (2001) reworks the comparatively advanced source code of ID software's *Quake* (1996), inserting a high coefficient of noise at the levels of graphics and control instrumentality. In *untitled game* familiar textures and elements of presentation from *Quake* remain but are in disorder, some levels exhibiting an unmanageably distorted control system, some being made up of kaleidoscopic graphics that make perceptual orientation impossible and others displaying underlying data on the screen. As Galloway has noted:

> ...*untitled game* foregrounds the gaming apparatus both through the use of visual material and through code. The work often lapses into pure data, streaming real-time code up on the screen with little or no representative imagery at all…[133]

[133] Galloway, *Gaming*, p.115.



Jodi, *untitled game* (2001)

As with Arcangel's reprogramming of NES cartridges into art objects, Jodi's reworking of games to destabilise user experience engages directly with the coded limitations of the game that are definitive of the control era cultural object. While this is undoubtedly a suggestive prospect in terms of counter-practice, what is needed beyond this is a mode of practice that engages with the interface conditions of the game, the act of playing it in the way it was designed to be played whilst locating modes of use that escape the limitations of this intended use.[134] Tool-assisted

[134] Galloway makes a similar point in addressing Jodi's game art; speaking of Jodi's *untitled game* as a potential control-era relation to Godard's disciplinary-era film practice Galloway states that the lack of engagement with gameplay is "the reason why Jodi's work is apolitical...Jodi aims to create better

speedrunning, the painstaking analysis and manipulation of source code to produce extremely fast completion of videogames, now emerges as a mode of cultural practice that enacts this mode of minor play.

Speedrunning

Tim Rogers, in his essay-review of Shigesato Itoi's *Mother 2* for the SNES, makes a distinction between two types of gamer; referring to a passage in *Mother 2* where the player is confronted, early on in the game in the town of Onett, with a house that is far too expensive to purchase at that point. "The player who thinks within the game's world will never have to buy the house. It's the breed of player most commonly referred to as a "gamer" that will *need* to buy the house. This gamer will come all the way back to Onett once he has enough money to buy the house."[135] The gamer looks to explore every possibility within the game world, and as Rogers significantly notes, this is because he does not only "think within" this world, which would entail the completion of only essential components of the procedural story, but considers every statistical possibility as a component of the game, irrespective of impact on its plot or completion. The speedrunner, in contrast to both player and gamer, thinks the game world from outside the technology, or rather sees the technical makeup of the game, consisting of hardware, interface and code, as part of the overall cultural object. The speedrunner sees the game as coded space, not only seeking every conventional diegetic possibility, but every exploit that is achievable through the game's standard control interface and that can redefine the possibilities of gameplay.[136]

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abstraction, not to create better (or different) gameplay. We need an avant-garde of video gaming not just in visual for but in actional form. We need radical gameplay, not just radical graphics." Galloway, *Gaming*, p.125.

[135] Tim Rogers, 'The Literature of the Moment: a Critique of Mother 2', http://www.largeprimenumbers.com/article.php?sid=mother2. Last accessed 29/06/09.

[136] For a wide-reaching account of modes of gamer advantage not intended at the design stage see Mia Consalvo, *Cheating: Gaining Advantage in Videogames* (Cambridge, London: The MIT Press, 2007).

If I return to my use of the athletics game *Track and Field* as a model of control in Chapter 1 of this thesis, the value of speedrunning as a model of counter-practice becomes clear. Benjamin Turner contrasts the kind of real-world athletic competition that *Track and Field* simulates to speedrunning in order to foreground the latter's novelty, noting that:

> [w]hile there are plenty of real-world time-based challenges, speed running stands apart thanks to its virtual nature. You'll never tune in to a track meet and see competitors taking shortcuts across the grass, but that's essentially the modus operandi of video game speed runners. Similarly, you'll never see athletes exploiting flaws in reality to jump further or to warp themselves ahead in the race. Again, that's something that can only be done via video games.[137]

What Turner fails to note in comparing game playing to athletics is the distinction in terms of effective rules. The reason athletes do not cut across the grass is that the rules, as upheld by a human agent with powers of interpretation, forbid it, and to do so would result in disqualification. In games, as the paradigmatic medium of the control society, the rules are limited only by code. If something is possible, within the coded parameters of the game, then the game will allow you to do it, regardless of how it relates to the intended gameplay. There is no referee or umpire to designate what constitutes incorrect play. Speedrunning is an example of the way in which game players are able to redefine objectives and the apparent 'uses' of the game code through a will to play combined with an understanding of the text's technical nature.

Broadly, speedrunning refers to the practice of completing games as quickly as possible, documenting the process through videos posted online at sites such as 'Speed Demos Archive' and 'TASvideos' and then attempting to supersede them.[138] As a practice it generally entails procedures and courses of action that lie outside of the intended gameplay – especially the reverse engineering and close examination of

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[137] Benjamin Turner, 'Smashing the Clock', http://www.1up.com/do/feature?cId=3142599&did=1. Last accessed 29/06/09.
[138] See http://speeddemosarchive.com/ and http://tasvideos.org/ respectively. Both last accessed 29/06/09.

source code. While there is a class of speedrunning that is based in the conventional methods of gameplay intended at the design and programming stages, usually involving the negotiation of the game's various stages and challenges with a high level of skill and ruling out the use of exploits or bugs, it is the class of 'tool assisted' runs that are of particular interest here. Tool assisted runs involve the use of emulation software that, alongside allowing the playing of a game intended for any console platform on a desktop computer, allows for the manipulation of the running speed of the game as well as the close examination of its code for potential exploits. Ironically for a practice that ultimately involves the fastest possible completion of a game, the production of a high-quality run is an extremely slow and painstaking process involving reverse engineering and the close examination of source code followed by the often frame-by-frame assembly of sequences in order to construct the finished run. It is not a spectacular process but a subtle and technical one. Despite this, the runs themselves involve nothing but the emulator, which stands in for the original gaming platform, and a regular game controller input such as a joystick or control pad. They are an extension of the intended use of the game, which is to complete it by jumping through its various algorithmic loops before buying the next title, but an extension that both exposes this procedural makeup and exploits its shortcoming to locate new possibilities of play.

In examining the various techniques and constituent practices of speedrunning it is worth concentrating on Bisqwit and Finalfighter's run of *Megaman* (*Rockman* in Japan) for the Nintendo Entertainment System.[139] The reasons for choosing this particular run are threefold; firstly, because older games such as *Megaman* do not demonstrate the code obfuscation found in newer games due to being written in 6502 assembly, allowing for direct examination as seen in the work of Cory Arcangel;

[139] This run can be downloaded as an AVI file from http://tasvideos.org/726M.html. Last accessed 29/06/09.

secondly, because they generally contain a higher amount of obvious bugs and exploits due to the technical limitations on design and use at the time of their construction; and thirdly, because the 'Rockman Tricks' and 'Rockman Data' websites maintained by Bisqwit document the full breadth of the techniques deployed in the run and their underlying code and mathematics respectively.[140] The description of Bisqwit and Finalfighter's run on the 'TASvideos' page sets out the fundamental characteristics of speedrunning, and the reason why it is of interest when thinking about control-era counter-practice, and is worth quoting at length:

> …this movie sacrifices a lot in the playability of the game. Full of tricks to pass through walls, tricks to avoid mandatory battles, tricks to pass through enemies relatively unharmed, tricks to acquire weapon refills in little time – there is very little in this movie left that resembles normal playing. Even death is used as a viable playing strategy that saves time. All of the tricks are still performed by the means of mere controller input, even though portions of the input were calculated by a computer program.[141]

In speedrunning, "normal" play is virtually absent, but what does occur is performed with a "mere controller input". This is at the centre of the way in which it locates a minor practice within a control-era major form, adding nothing new to the total content of the game but allowing for the execution of nonexistence within the algorithmic limitations of control.

On the 'TASvideos' site Bisqwit and Finalfighter's *Megaman* run is listed as "abus[ing] programming errors in the game" and "manipulat[ing] luck."[142] These tactics are described at length on the 'Rockman Tricks' and 'Rockman Data' sites, and give clear, material insights into speedrunning practice. Many of the most obvious examples of the abuse of programming errors can be found in the way the runners exploit the game's zipping mechanism. This is in place to prevent the game character becoming stuck in a wall, which would make the game unplayable, and

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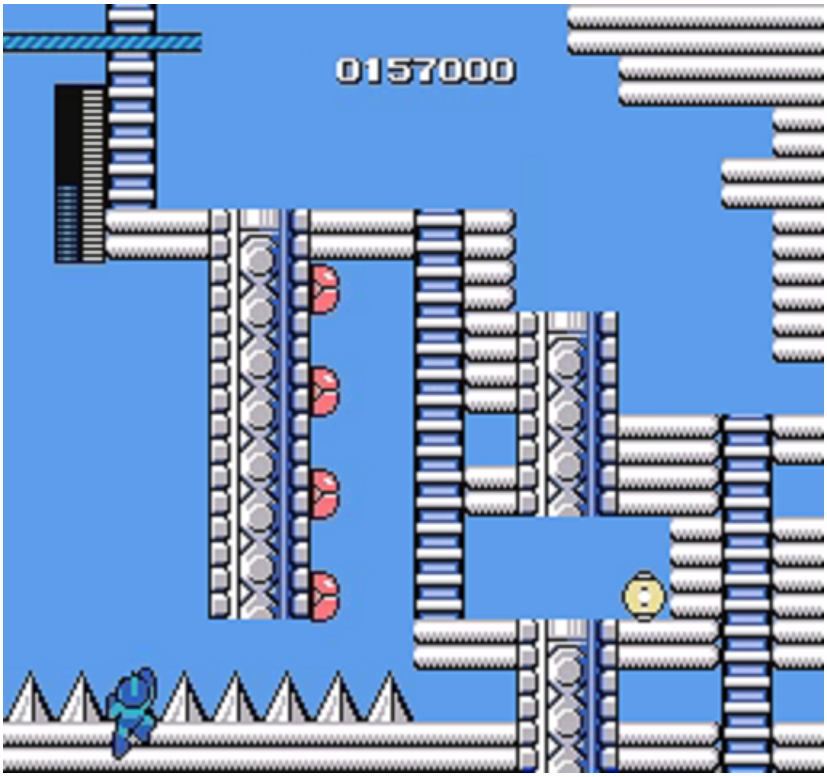
[140] These sites are found at http://tasvideos.org/RockmanTricks.html and http://tasvideos.org/RockmanData.html. Also see the section on common tricks and exploits at http://tasvideos.org/CommonTricks.html. All last accessed 29/06/09.
[141] http://tasvideos.org/726M.html. Last accessed 29/06/09.
[142] *Ibid.*

takes the form of a function of the walls in the game whereby the player is ejected in the direction they are moving if they somehow enter them. Triggering this mechanism intentionally allows areas of the game to be traversed extremely quickly, making the discovery of ways to enter walls or ceilings important. One way found by the runners to execute this exploit is through a function of the ladders whereby if the character grabs a ladder too high to actually climb it, or holds both 'up' and 'down' controls together on the top of a ladder, they are automatically elevated twenty-four pixels irrespective of the position of the ceiling or nearby walls, forcing wall entry and triggering the zipping mechanism if their positioning is correct.[143] The combination of these two technical aspects of the game is exploited throughout Bisqwit and Finalfighter's run, producing the vividly distorted, glitchy passages of which the section from 12:17 to 12:41 on the video is amongst the most extended examples.



Ladder exploit from Bisqwit and Finalfighter's *Megaman* run

[143] This exploit is illustrated in the 'Grabbing the top of the ladder too high' section of *Rockman Data*. 24 pixels is the height of the sprite representing the player character.

The manipulation of luck is much less obvious through watching the run documentation video, but nonetheless is highly instructive in terms of the speedrunner's approach to gaming. Since games are played on a computer which always produces the same output from a given input, many events which appear even through long observation to be random are actually predictable. As the 'common tricks' section of 'TASvideos' states, "[g]ames are purely deterministic and depend solely on user input."[144] As such, when a seemingly 'random' event such as the dropping of an item by a killed enemy occurs, it is always determined by a number of numerical variables drawn from the game's inputs and outputs. These variables could be the game clock, the pixel position of the player or non-player characters, the direction and speed of movement, or many others. Through examination of the assembly code, alongside trial and error, it becomes possible for the runner to collect optimal items at all times and trigger most desirable (i.e. least troublesome) enemy behaviour, allowing for a reduction of overall play time.

While Bisqwit and Finalfighter's run does contain some examples of spectacular play, this is by no means an essential component of the tool-assisted speedrun – in fact, the painstaking nature of the process means that it is far removed from spectacle. The gamer Erokky has achieved a 3 minute 48 second run of *The Legend of Zelda: A Link to the Past* for a Nintendo's SNES through exploiting a programming error that allows the player to walk through walls by holding more than one direction at the same time.[145] The video document of Erokky's run consists almost exclusively of empty, glitchy scrolling screens and contains virtually no 'regular' gameplay. This foregrounds two crucial aspects of control-era minor practice: the necessity of deploying "subtle processes" and the scarcity of talent. It is stated, in the FAQ section

[144] http://tasvideos.org/726M.html.
[145] Video documentation of Erokky's run can be downloaded from http://tasvideos.org/869M.html. Last accessed 29/06/09.

of the TASvideos archive, that "only a few players that make good tool-assisted movies are truly skilful in real-time playing."[146]

Erokky's Zelda exploit would have been prevented on the controller the game was originally meant to be played on, as it has a 'see-saw' design for the directional pad making the holding of opposing directions impossible. In order to exploit the wall-warping glitch the runner must both understand the technical makeup of the game that underpins its apparently linear world and play the game on an emulator that allows use of a different controller input. This is one of the crucial ways in which tool-assistance enables modes of alternate play; the input device is still a game controller, and in many ways the process of playing the game is the same as in regular play, but the exploitation of bugs and glitches render gameplay and visual output radically different.

Detail of Nintendo SNES controller, showing the impossibility of pressing opposite directions simultaneously

The application of multiple opposing directions is the source of bugs and glitches in many videogames, as demonstrated in the art collective RSG's 'Prepared Playstation' works, but in speedrunning the exploitation of these glitches specifically aids progression through the game in ways that are other than those intended at the design and programming stages.

[146] TASvideos FAQ, http://tasvideos.org/WhyAndHow.html. Last accessed 29/06/09.

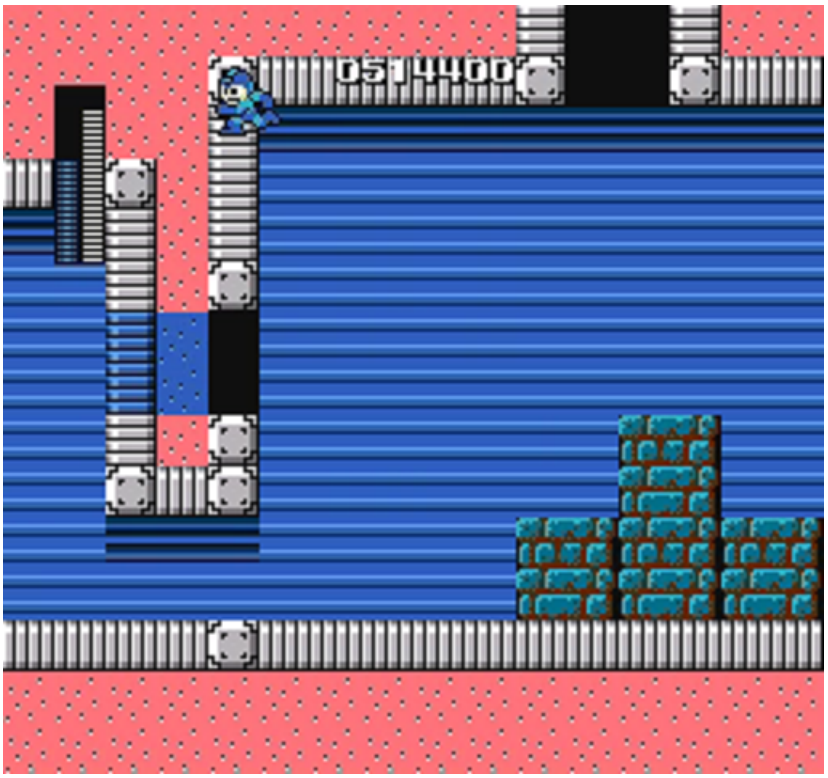
Elements of the preparation technique from RSG's *RSG-PP* works for 'prepared Playstation' (2004)

The completing of commercial, proprietary games in the glitchy, buggy ways that speedrunning suggests has the effect of foregrounding the abstract functions that underpin the seemingly linear map and sets of objectives that make up 'conventional' gaming experiences, but unlike Arcangel or Jodi's work this is *as a result* of play, rather than at its expense. Carrying out tasks, passing through areas in a particular order, collecting certain items; game completion is rarely conditional on these components in a particular game's narrative, in spite of the management of possibility that the code effects. This is made clear by the video of Erokky's Zelda run in which the entire body of diegetic gameplay, the majority of which is spent glitching through walls, takes up less than four of the eleven minute running time, the remainder consisting of the regular post-game sequence in which all of the places and people encountered in playing the game normally are revisited. In executing his exploit-filled run Erokky avoids virtually all of these people and places while still completing the game, leading to a clear tension between the content of his play and the revisiting of

the game object's conventional algorithmic makeup in the final video document. In his *Zelda* run Erokky is not simply casting the rules aside to randomly wander the game map, finding errors in the code that produce radically disordered graphical phenomena or refusing to play the game according to the objectives set out according to its internal narrative. Instead he finds an alternate way to play the game to 'official' completion, demonstrating both the indifferently coded nature of the game world and the procedurality of its story, the positioning of objectives between start and the end that are not at all conditional on the player completing the game, but that the game algorithm makes the player pass through in order to creating the illusion of causal, emergent narrative.

Visually, speedrun videos produce output that is at times comparable to the work of Jodi and Cory Arcangel, and they demonstrate a similarly dual understanding and exposition of code and user experience to the work of those artists. In both Bisqwit and Finalfighter's *Megaman* runs and Erokky's *Zelda* run there are constant noisy glitches, both visually and aurally. The screen flickers and distorts, walls and platforms cease to function as they should, artefacts of various screen elements, and sometimes pure digital noise, appear at unexpected places on the screen, and in particularly extreme case the soundtrack lapses into harsh, modem-like tones as a result of the abusive gameplay taking place. The crucial distinction between speedrun videos and the work of Jodi and Arcangel lies in the method of creation; instead of excising playability or usability, speedruns are carried out through play or use. They place technical virtuosity and the will to distort software's intended use at the heart of a mode of gameplay that pushes beyond coded limitations. They do not attempt to simply display the disordered visuals that exploits create, but do so as a result of playing the game, retaining basic controls, interface, presentation in terms of hardware and software and certain start and end points whilst extending the

possibilities of play into hypertrophy. Watching the aesthetic and actional feedback of speedruns makes it clear that the practice is based around a potentially central concept in contemporary avant-garde practice: that of nonexistence in relation to code. If code takes the place of the referee that stops athletes profiting from running off the track, or the speed bump that prevents drivers from driving too fast, the speedrunner's practice is to become nonexistent to this code. They pass through walls that are coded to be impassable, harmlessly touch enemies that are coded to do a particular amount of damage when touched and, perhaps most tellingly, assuredly collect items that are coded to be random.



Nonexistence in relation to coded wall, from Bisqwit and Finalfighter's *Megaman* run.

While speedrunning is highly suggestive of a user-end reordering of procedural info-narrative in service of escaping the tightly-coded parameters of possibility that it presents, the techniques that speedrunning employs remain removed from the

commercial front-end of major production. Despite the inclusion of the input device in the construction of a run, the close examination of source code and the painstaking assembly of the total run present problematic removals of the actional narrative from the commercial, major conditions that minor practice must engage with. To frame the two main examples set out above in the context of minor tactics suggested through the preceding chapters of the thesis: if Arcangel's *Super Mario Clouds* is equivalent to the empty frame at the end of *Halloween* without the rest of the film's major elements to support and transport it, speedrunning is equivalent to the user-manipulation of DVD or video controls to create alternate viewing experiences. Both are impossible to achieve in the intended presentation of the cultural object, be it film or game. Both are highly suggestive as *elements* of a contemporary minor practice, but both require a further degree of tactical engagement with the commercial modes of major production in order to properly function. To conclude this section I move on to examine Valve software's *Portal* (2007), a game that connects the conceptual dimensions of speedrunning to the commercial modes of major game production. In doing this I align the prospective modes of control-era minor practice in gaming that this chapter has been moving towards with the broader productive and distributive modes of control-era major practice.

Gaming, commerce and minor practice in *Portal*

The minor possibilities expressed by the game art and speedrunning examples set out above both work on the space between the linear, perspectival world that games visually present and the indifferent, nonlinear data and algorithms that allow them to function. Cory Arcangel's game art demonstrates the fact that while what appears on the screen may be a representation, however basic, of familiar perspectival space it is actually comprised of the indifferent movement of hexadecimal numbers and

mnemonics resolved to binary digits. Incrementally expanding this into the experiential level Jodi's *untitled game* demonstrates the severity of user experience that can be created solely through a separation of controls and visuals from logical perspective – when pressing 'up' no longer moves the player character up but instead creates a series of other, less predictable outcomes in relation to the world represented graphically. Tool-assisted speedrunning continues this progression in two ways, one relating to representation and the other relating to actional narrative. Firstly, it exploits the fact that the game world, while linear and perspectival in terms of its graphical representation, is created and maintained by abstract code at the technical level and as such there no real reason *why* a wall should prevent the player from passing through it. Secondly, it puts this exploit in the service of arriving at the nominal end of the game's actional narrative arc, and in doing so foregrounds the fact that this too is dependent not on any kind of user-centric representative structure but on the satisfaction of certain coded requirements.[147] As stated above, however, both game art and speedrunning appear as subcultures within gaming, cultural practices that exist *alongside* rather than *within* the major, however strongly suggestive they are of prospective counter-tactics. It is possible to trace these characteristics into the realm of commercial game design in Valve software's *Portal*, a game that hints at the broad possibilities for minor tactics that exist within, rather than alongside, the terms of the control-era major.

Portal was released in 2007 as part of Valve Software's *Orange Box* release for PC, a compilation containing their flagship game *Half-Life 2* and a number of additional games based on its Source engine.[148] This engine, and specifically its 'realistic' physics engine, is a principle factor in the way *Portal* functions between the

[147] A clear example of this being Erokky's *Zelda* run, where entering the final 'room' is all that is needed to complete the game despite the represented narrative concerning the recovery of several magical objects and the defeat of an evil wizard.
[148] In addition to *Portal* the *Orange Box* contains *Half Life 2: Episode 1* and *Team Fortress 2*.

visual and actional levels of major game design and the minor aspects of play that characterise speedrunning. *Portal* is presented through the subjective point-of-view perspective that is definitive of the first-person shooter videogame (FPS), of which Valve's original *Half-Life* (1999) is a key example. In *Half-Life* a number of elements intended to develop player immersion, and hence separation from the underlying procedurality of its algorithm, are added beyond the regular logical correspondence of graphical representation to user experience, controls to action and cause to effect. *Half-Life* eliminates non-diegetic elements and keeps the player in the first-person view at all times (i.e. there are no cutscenes or defined breaks between levels, and the game takes place in real time). This is a significant graphical-narrative development in the presentation of seamless, unified space and action in the videogame that tends towards the active promotion of 'intended' or 'directed' modes of play in a way that older, more limited games such as *Megaman* or *Super Mario Bros* or even early FPS's such as *Doom* and *Quake* do not. While the earlier games effect their coded limitations technically (i.e. at the code level) but not culturally (i.e. by suggesting 'proper' play through graphical and narrative signifiers drawn from other media, most often film), *Half-Life* marks a significant step towards the incorporation of the latter to bolster the control of the former.[149]

Half-Life 2, the game from which *Portal* takes its game engine, retains all of its predecessor's immersive elements and adds a number of new ones; in addition to a number of technical additions to the graphical presentation such as high range dynamic lighting, the Source engine adds 'realistic' physics to the game

[149] See Galloway, 'The Unworkable Interface' for a discussion of *Half-Life* as a definitive model of the digital cultural object that "believes in the mediatic condition but doesn't enact it", in contrast to Blizzard Entertainment's *World Of Warcraft* (2004) which, through its high coefficient of extradiegetic material especially data on the game world presented to the user, "enacts the mediatic condition but doesn't believe in it." *New Literary History* vol. 39 no.4 (Autumn 2008), p.954.

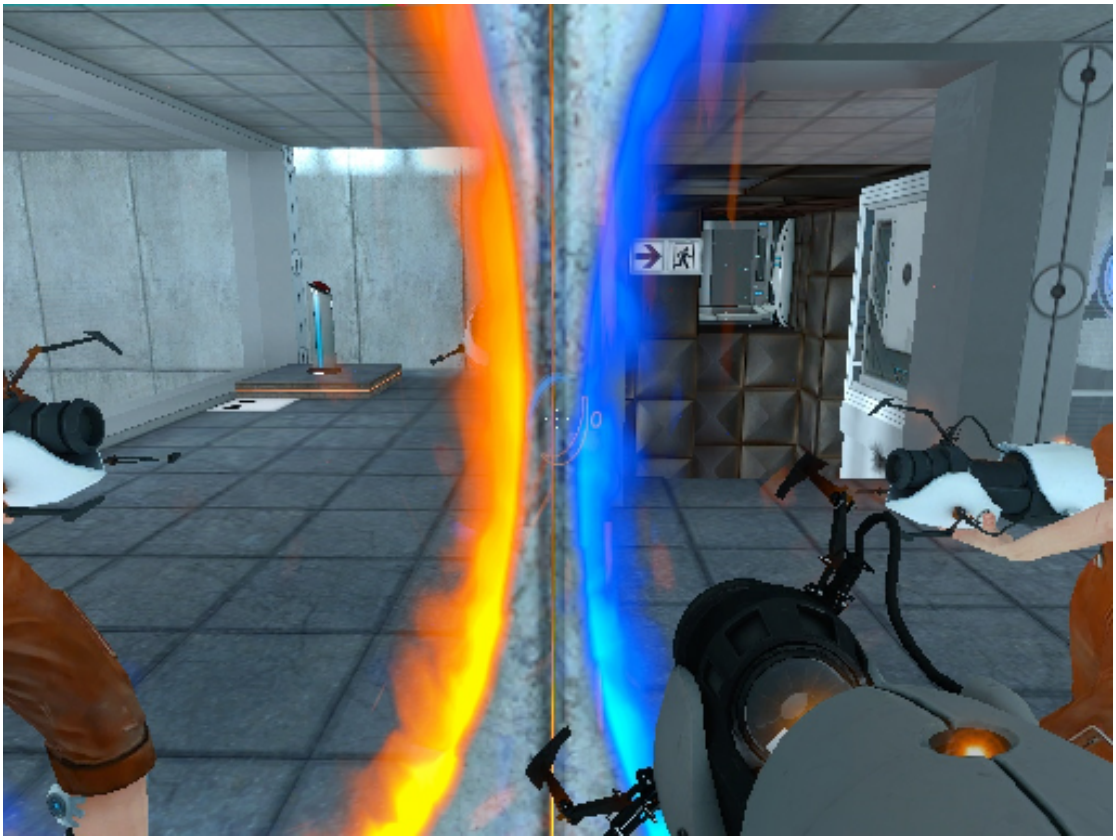
environment.[150] Beyond the simple logical correspondence of a direction on the controller to a direction in the game, or an object such as a wall within the represented game world to the possible interaction of the player, *Half-Life 2* adds an emulation of real-world physics, based on mass, velocity, friction, wind and so forth to the interaction between player and depicted world. *Portal* retains the first-person 'immersive' presentation and experiential logic of *Half-Life 2* but presents a mode of play that constantly foregrounds the gap between the logic of the depicted space and its indifferent, coded nature.

Portal presents a game world which the user is encouraged to traverse in nonlinear ways that are only possible due to its coded nature. It is a game in which the core of the speedrunning aesthetic, the redefinition of linear space, and consequently narrative, through action is realised in the 'official' gameplay. The game is made up of a series of three-dimensional puzzles that must be solved using a device that connects two points in space, the 'Aperture Science Handheld Portal Device 04'. The player assumes the role of a test subject in a laboratory, charged with testing the portal device by an artificial intelligence, GLaDOS. The only objective, for the most part of the game, is to traverse a series of puzzle rooms that predominantly require an understanding of the portal device's effect on the coded, but 'realistically' depicted and modelled space.

The portal device does not create a gateway or pathway between two points in space, but literally makes them the same; when two portals are placed, one is the reverse of the other. At the point that he or she enters the blue (or 'in') portal as depicted in the image and diagram below, the gamer is, for a brief moment, at the point of the blue and the gold (or 'out') portal at the same time. This event is central

[150] See Jay Stelley, 'Physical Gameplay in Half-Life 2' for a PowerPoint presentation detailing the implementation of physics in *Half-Life 2*'s design and production. http://www.valvesoftware.com/publications/2006/GDC2006_PhysicalGameplayInHL2.pdf, last accessed 08/07/09. For a selection of papers by Valve developers on various aspects of the Source engine see http://www.valvesoftware.com/publications.html, last accessed 08/07/09.

to the game's actional narrative progression, repeated every time a portal is used. The undecidability in relation to space that the portals effect can be seen most clearly by placing a portal on a vertical surface and another on the other side of the same room, positioning oneself halfway inside the first it so that the player character can be viewed in multiple places at once. In the screenshot below the player has placed the blue and gold portals on adjacent surfaces, allowing them to view themselves in four spaces at the same time. These four simultaneous manifestations of the player are as follows: the character as represented by the usual point-of -view perspective looking out into the game world; one model of the player character in each of the two portals; the portal gun that can be seen just poking into the game world to the immediate left of the gold portal. The question of informatic nonexistence is foregrounded in this instance in the impossibility of defining exactly where the player 'is' at this point.



Undecidable location between two portals in *Portal* (2007)

By implementing the portal device as the sole 'weapon' *Portal* foregrounds the arbitrary way in which its world functions, walls being nothing but code regardless of how realistically light appears to reflect off them or the player character bounces off them. The variety of actions that are possible with the portal device is large, but perhaps the most spectacular is the 'flinging' process that constitutes a fundamental component of the gameplay; several levels into the game the player is informed by GLaDOS that they retain their momentum going into the 'in' portal when they exit its opposite.[151] This leads to the possibility of crossing large holes in many of the puzzle rooms by placing the 'out' portal above the gap and falling into the hole, placing the 'in' portal at the point of landing; the fall from a great height leads to a forceful exit from the 'out' portal, 'flinging' the player across the drop.

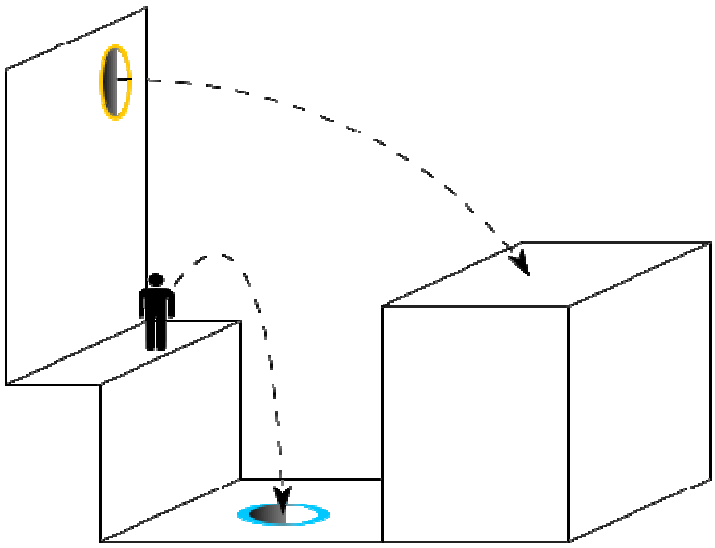


Diagram demonstrating the 'flinging' process in *Portal*

Such a practice foregrounds the way in which the portalling process is one that is only possible in space that is abstractly coded, but according to 'realistic' physics. The gap that this aspect of *Portal*'s gameplay presents, between the consistently

[151] For a demonstration of the breadth of actions possible through the interaction of the portals with the game's physics see the non-tool-assisted speedrun carried out by Michael 'DemonStrate' Yanni, downloadable from http://speeddemosarchive.com/Portal.html#PCscripts, last accessed 08/07/09.

modelled logic of physics and proportion and the single element within its world that breaks this logic, is a productive source of minor tactics in the control era. *Portal* makes the exploitation of coded space in contrast to its linear, logical presentation the central, if not sole, aspect of its gameplay. It is a game that follows the technical and representational form of a major release (the FPS) as well as its productive and distributive models, and that deploys nonexistence or undecidability as a basic condition of its use.

What is crucial about *Portal* is that, unlike Jodi or Arcangel's artworks or the speedruns of many pseudonymous practitioners, it simultaneously exemplifies and undermines informatic control at the intertwined levels of code, narrative and visuality. *Portal* compiles each of the distinct strands of prospective minor practice that games imply into a functional whole. At the narrative level, the game asks the player to be reliant on a fictional hardware/software system, the supercomputer GLaDOS, as they are reliant on their own hardware and software at home in order to play the game. By making GLaDOS a malfunctioning, glitching and buggy system, the game both provides an antagonist and demonstrates the arbitrary expectations of computer stability that are the most basic requirement of gameplay.[152] The way in which it deploys realistic physics and graphics in service of a non-realistic mode of play, and the way in which it presents the most abstract form of algorithmic game narrative (the puzzle game of which *Tetris* is the most well-known example) through the most ostensibly realistic mode of presentation (that of the modern FPS) creates a

[152] This theme of the player character having to interact with a computer within the game, and that computer being somehow compromised in terms of stability and therefore trustworthiness is present in a number of games; Irrational Games' *System Shock 2* (1999) is a particularly notable example in terms of control allegory, taking place on a deserted ship, floating in space, that is overseen by a supercomputer that is responsible for not only the maintenance of the ship but the cultivation of an organic life form that the player must eliminate. What eventually becomes apparent is that player character is an ultimately unacceptable presence to both the computer SHODAN and the organic life form of the Many, because as a player outside the game and a cybernetically augmented human within it we represent an inseparable combination of the two. This is effected in a way that is only possible in a computer game, in the congruence between the literal way in which the game is played with computer, mouse and keyboard interfacing with brain and reflexes, and the character that is controlled play via this interface who is both rendered an amnesiac and supplemented with cybernetic implants.

tension between actional user experience and representative visual mode that is crucial to envisaging of tactics for counter-practice.

To progress through a control-era narrative object in a minor fashion it becomes necessary to understand the individual steps of its algorithm and the terms of the visual layer that overlays it, and to find ways to abstract and exploit these interrelated layers at the informatic level. This holds true for each of the media discussed in this thesis, although the intensive perfection of the relationship between algorithmic narrative, visual representation and user experience that games effect makes their examination particularly telling.

Minor practice in the control era is based in a manipulation of the relationship between existence and nonexistence to feedback loops of data, processing and output, that is, between the steps that constitute an algorithm and allow it to produce a functional output and the noise of undecidable or irrelevant information that impairs this formalisation. *Portal*, as a major commercial product within the severe informatic constraints of both the control-era market and the videogame medium, allows the user to inhabit undecidable or nonexistent positions within the apparent solidity of walls, the apparently linear layout of maps and even the procedural, algorithmic nature of gameplay, and this allowance is a condition of its user experience. Each of these executions of nonexistence or undecidability represents a crucial counter-mode for the control era, but this is not to say that *Portal* is a perfect model of minor practice. In the same way that *Portal* makes it possible to visualise and execute nonexistence in a coded, realistically modelled world, it constrains this nonexistence under the same terms of coding and representational physical modelling. In this way, it exists as much as a coding of undecidability as it does a suggestion of the undecidable within the coded. Either way, this does not impair the game as a site from which minor tactics can be extracted.

As is the case with the preceding examples set out in this thesis, it is not necessarily the case that minor possibility must exist in an intentional and sustainable way; in fact, the very instability of the examples given throughout the thesis is a crucial aspect of their minority, a necessary function of the noise as nonexistence that occurs within their algorithmic form. This instability runs through the Grimm's "corrupt" folktales when addressed in the formalising manner Propp sets out. It characterises Beckett's writing with its overarching imperative to "fail better" and the formal breakdowns that constantly occur within it – a notable example being the end of *Malone Dies* and the subsequent start of *The Unnamable*.[153] The substantial work that the sequels and remakes that follow *Halloween*, as well as the many films that abstract its basic form, go through to in order to implement continuity and avoid any point of undefinability suggests an inherent instability in the original film that exists regardless of its great commercial success. The informatic instability that *Twin Peaks* creates is evidenced both in the uncertain form that results from the competing terms of control-era commercial and distributive processes and disciplinary auteurship and in the rapidity of its aesthetic and commercial decline once the fine balance between these terms failed. In Takashi Miike's work the abstractions of commercial story algorithms and visuals are themselves abstracted, producing faulty versions of commercial genre pieces, cultural objects that are usually predicated on the extreme efficiency with which they meet user expectations for spectacle and executive narrative but that in Miike's hands become nonspectacular and imperfectly executed . In each instance the instability of the minor object stands in clear contrast to the definitive algorithmic processes of control and the notion of majority as the "model you have to conform to." This is a crucial point at which deterritorialisation, the connection of each individual intrigue directly to politics and the manifestation of

[153] Samuel Beckett, *Worstward Ho* (London: John Calder, 1983), p.7.

scarcity of talent – the three characteristics set out in relation to the transitional period from disciplinary to control eras by Deleuze and Guattari in *Kafka* – can be seen functioning together, at the informatic level, in the production of a contemporary control-era minor practice.

Conclusion

Echoing Deleuze's remark, reproduced in Chapter 1 of this thesis, that the major is not a quantity but "a model you have to conform to", the sociologist Nicholas Thoburn has made a comment on the major and the minor that reinforces the centrality of the concepts to the socio-cultural and historical preoccupations of this thesis.[1] Writing in *Deleuze, Marx and Politics*, Thoburn states that:

> Minor and major are expressions that characterize not *entities*, but *processes* and *treatments of life*. Essentially, major processes are premised on the formation and defence of a constant or a standard that acts as a norm and a basis of judgement.[2]

This definition of the major as a standard for judgement that is borne out though processes and standards demonstrates a clear correspondence with the abstracting, indifferent informatics of the control society, gamespace and 'Info-Empire'. The clear connections with the indifferent, machinic data processing of the computer that Thoburn's use of '*processes*' suggests, and the extension of these processes into '*treatments of life*', is definitive of the control era notion of majority that this thesis proposes. In this connection can be found the reason that why Deleuze's return to the concept of the major and the minor in his 1990 conversation with Negri, a conversation whose primary focus is the control era, is such a telling one in the context of his late work and specifically the 'Postscript on Control Societies'. Although he was never able to fully articulate it in his writing, there is an intimate connection in Deleuze (and in his work with Guattari) between the emergence of majority as a predominant mode of social and cultural production and the emergence of a control society whose contrast to sovereign or disciplinary societies is to a great extent technical and informatic. Starting with this connection, it has been an overarching concern of this thesis to demonstrate the interconnected historical

[1] Gilles Deleuze, *Negotiations*, p.173. Also see Chapter 1 note 12 of this thesis.
[2] Nicholas Thoburn, *Deleuze, Marx and Politics* (London, New York: Routledge, 2003), p.6.

emergence of control and the development of majority, and at the same time to identify the corresponding modes of counter-practice or minority that emerge in relation to them.

The appearance of major and minor forms that correspond to the control era does not occur as a sudden change or break from older models, but rather as a gradually-increasing efficacy of the characteristics Deleuze and Guattari identify in *Kafka* that is commensurate with the socio-technical emergence of ubiquitous, executive informatics. This is why Deleuze places Kafka at the period of transition from disciplinary to control eras, and why in this thesis it is necessary to trace prospective minor tactics from this transitional period through to the present. The bureaucratic major model that Deleuze and Guattari identify Kafka's minority as running counter to combines the endless postponement or modulation that Deleuze cites as definitive of control with the institutional confinement that is definitive of the preceding disciplinary period.[3] It is a nascent model of majority that still lacks its instrumental technology – the computer – and has to make do with insufficient forms such as the camera and the typewriter for inscription and storage, and the postal service and telegraph for distribution. With the emergence of the computer and the network the majority described in *Kafka* attains its fully-realised state alongside the control society, gamespace and 'Info-Empire.' It is precisely because of this process of development that the concepts of majority and minority are so crucial to contemporary theorisation and practice; the fundamental characteristics of majority are the same in Kafka's transitional period and in the present, developed control era – it is simply the case that they are more pervasive, total and efficient due to the emergence of their definitive technologies of definition, execution and distribution. Because of this, in envisaging prospective counter-tactics in the present era it is

[3] Deleuze, *Negotiations*, p.179. Also see Chapter 1 note 4 of this thesis.

highly productive to observe a similar transposition of the minor characteristics Deleuze and Guattari set out in *Kafka*, tracing the necessary modifications as they correspond to the perfection of the major form from the transitional period that produces Kafka's writing to the developed control society. If the minor is always located within the major, effecting deterritorialisation, connecting directly to politics and expressing through scarcity of talent, then it almost goes without saying that, in order to determine the contemporary state of either, it is essential to trace the historical development of the two concepts in correspondence.

In Beckett's writing it is possible to witness the development of a form that progressively engages with informatics through algorithmic, narrative and visual dimensions that appear in historical continuity with the emergence of the computer. That this form also exhibits, alongside its correspondences with the terms of computation, the presence of nonexistent and negligibly-important information as noise (or 'silence') makes it both historically and formally indicative of the passage from disciplinary to control societies in terms of major *and* minor practice. Following from this developmental example, the centrality of commercial feedback to the contemporary conditions of control necessitates an examination of distribution and user experience as both directed by a given object and reconstructed through demographic data to allow future production to be better targeted. The direct-to-video slasher market of which a model abstracted from *Halloween* is emblematic presents a crucial case-study here, deploying an algorithmic, kill-to-kill narrative form that can be witnessed all the way up to the most expensive and visually spectacular blockbusters of the developed control period. At the same time, *Halloween* itself, in the central nonexistence of its antagonist and hence its narrative algorithm, allows for a clear grasp of the way counter-practice can exist within the commercial and formal constraints of major production. The analysis of *Twin Peaks* extends the prospective

relationship between major form and minor practice through the abstraction of commercial abstractions, most notably the negligibly-important information that advertisements add to the overall narrative arc and the reduced image quality that television 'adds' to Lynch's lush visuals. In contrast to *Twin Peaks*, which presents the engagement of a disciplinary-type auteur with control-era commercial concerns, Takashi Miike's work emerges from his early career in the emblematic control-era role of the director as production middle-manager. This allows his later work to extend the notion of abstracting informatic abstraction beyond the unstable, antagonistic form presented by *Twin Peaks* by presenting a series of films, videos and television series that insert noise through a hypertrophic application of emblematic commercial major processes without any nostalgic leanings towards the disciplinary notion of the auteur. Each of these examples points towards a growing correspondence between the computer-defined, informatic terms of control and the predominant mode of cultural production, and at the same time towards the commensurate counter-forms that correspond to this predominant mode. As such the location of the videogame, as the form that emerges from the control era and as such does not require any such transformation in order to fall under its conditions, is the logical point at which this historical and formal examination concludes.

Following this historical passage through majority and minority in the twentieth century it must be noted that the location of speedrunning – and ultimately *Portal* as a game that engages with both speedrunning and the FPS as the dominant commercial major game form – is by no means a definitive, final word on the field of prospective counter-tactics in the control era. To make such a claim would be to admit that control-era counter-practice is highly limited both tactically and in terms of the type of form it can take place within, and to ignore the crucial tactics that can be extracted

from works stretching back across the history of cultural production.[4] The placement of games at the end of this thesis is intended to demonstrate the relationship between contemporary major and minor practice through the popular form that is native to, rather than inherited by, the control society. At the same time it is highly productive to examine the correspondences that exist in the control era between games and the inherited, older forms that continue to be commercially produced under the umbrella of control and whose modes of production are markedly altered by it. This mode of address is essential because of the significant contrast between the technical, indifferent form of control that the game exemplifies and the preceding, judgement-based forms of discipline that are manifested by the older forms in the period they emerge from. Digital games, by permitting the player to do anything that is coded to be possible whether intended or not, while at the same time denying the possibility (rather than the legality) of all other actions, present the ideal form of a control-era cultural object. In terms of contemporary minor practice this characteristic of the videogame has two major implications. The first is discussed at length in Chapter 10 and relates to the way in which, because of their indifferent technical limitations on user experience, any possible counter-tactic in gaming is productive in thinking about broader tactics relating to cultural objects in the control era. The second relates to the way in which imperfect manifestations of their major characteristics can be traced from games into the older cultural forms of narrative production that are inherited by the control society, thus both demonstrating the historical, technical and formal

[4] While I employ a periodisation in this thesis that is bounded by Deleuze and Guattari's notion of major and minor practice and the movement from the "point of transition" (between discipline and control) that Deleuze ascribes to the period of Kafka's writing to the developed control era of the present, this is not to say that concepts applicable to the technical, social and cultural forms of control society cannot be found in texts that long predate the twentieth century. This is clearly evidenced in Friedrich Kittler's recent work, which roots his digital media theory in the literature and mathematics of ancient Greece, and in Alexander R. Galloway's recent deployment of Hermes, Iris and the Furies as models of mediation. See Kittler's essays 'Lightning and Series – Event and Thunder' and 'Number and Numeral', in *Theory, Culture and Society* 23 issue 7-8 (December 2006), and Galloway's 'The Unworkable Interface' for examples of this approach.

emergence of control-era majority and suggesting possible routes for the transposition of counter-tactics from games to a breadth of preceding cultural objects.

In making their statement that "there is nothing spectacular about networking" and at the same time critiquing the technical knowledge of "most of the leading theorists" Lovink and Schneider claim that "it is not adequate to analyse this with [Guy] Debord's Society of the Spectacle."[5] This claim is a crucial component of Lovink and Schneider's insistence on technical insight for the analysis of the digital, networked 'Info-Empire' that is the global condition of the control society, but in making it they neglect the crucial role that aesthetic, thematic and narrative concerns relating to the pre-control era play in the efficacy and normalisation of the subtle, informatic processes that are definitive of control. Alexander Galloway's claim that "the computer was born not from the age of information but the age of spectacle", and that "the real subsumption of the visual, its erased 'un', allows informatics both to retain and deny its viability" is a crucial addition to Lovink and Schneider's claim, and to the overall grasp of control-era major and minor practice that this thesis sets out.[6] While control-era cultural objects require analysis, critique and counter-practice at the abstract, informatic level that they are technically predicated on, it must also be noted that many emblematic components of pre-control-era production (text, visuals, sound) are also abstracted in producing such informatic objects. As such, the analysis of these aesthetic elements – in addition to the specific theoretical paradigms that accompany them – must be configured within the theorisation of control-era culture. The videogame represents a highly productive site at which to exercise this mode of analysis and critique because it both produces a developed control-era user experience and deploys components of its preceding forms in order to make this

[5] Geert Lovink and Florian Schneider, 'Notes on the State of Networking', http://www.makeworlds.org/node/100.
[6] Pau Alsina, 'Interview: Alex Galloway', http://www.zemos98.org/spip.php?article561.

experience familiar and accessible. Crucially, videogames also present a framework for understanding the way in which similar processes are manifested in reverse, for example in the emergence of a procedural algorithm within the spectacular terms of the cinema when it's objects are produced in the period, and under the terms, of control.

In articulating the significant differences and identifications between games and older forms such as film at the start of the final chapter, I make it clear that in the control era it is not simply the case that films (and other media forms relating to the disciplinary period and before) furnish the experience and theorisation of games but rather that these distinct media display a complex interaction with one another that in itself is indicative of the abstracting processes of control-era major production. What is crucial about games in relation to the ongoing history of cultural forms is that they deploy aspects of written and visual culture from preceding eras as one of several threads in the creation and direction of user experience and familiarity, but are not reliant on them for their basic function. The removal of a particular, psychologically-defined character arc, for example, does not impair the technical function of a videogame in the same way that it does a classical work of the cinema. At the same time, games perfect the algorithmic dimension of user experience that defines control-era narrative production – a process that can be found in a nascent and imperfect state in Propp's attempts to delineate a calculus of narrative that would be both perfectly formal (and hence executable) and perfectly meaningful. That both these characteristics can also be seen in the control-era production of narrative films, for example – as seen in the removal of multiple character-development scenes within Cameron's *Terminator 2* in favour of a faster pace and more rapid movement between special-effects set pieces – only reinforces the importance of the informatic-

cultural analysis described above in grasping contemporary cultural production and its counter-modes.

The videogame as an emblematic control-era cultural object, and the transversal relationships it exhibits with the contemporary production of older forms, thus offers a theoretical solution to Lovink and Schneider's claim, quoted in Chapter 1 of this thesis, that "most of the leading theorists are not aware of the current power transformations" because of their predisposition towards a pre-control-era grasp of cultural production.[7] An understanding of the "subtle processes" and "feedback loops" that define the control era is essential in avoiding this theoretical shortfall.[8] It must be noted that this does not mean a thorough rejection of older theoretical modes, despite what the squabbles regarding cognitive studies, for example, would appear to suggest. Psychoanalysis, deconstruction, semiotics, feminism and postcolonial theory amongst other modes of cultural criticism retain a crucial role within the analysis of the control era, not least because of the complex of issues raised by the abstraction of biological life and personal identity that control effects. Rather, it is necessary to grasp algorithmic, informatic processes as a fundamental characteristic of the control-era cultural object that historically emerges alongside cultural theory, and as such to find the ways in which these terms most productively interact. Videogames, as the emblematic commercial entertainment form of the computer, perfect the productive conditions of control (by producing experiences that are supposedly both optimally formalised and optimally meaningful) and at the same time reflect these conditions onto the films and other pre-control modes that are produced alongside them, which come to manifest the type of propositional, step-by-step story that Wark identifies in *Gamer Theory* and that is exemplified in this thesis by the slasher film and the special-effects blockbuster. In grasping this dual function of the videogame as

[7] Lovink and Schneider. 'Notes on the State of Networking'.
[8] *Ibid.*

indicative of a broader turn in socio-cultural production it is possible to begin properly addressing the broader power transformations that Lovink and Schneider speak of from the appropriate technical perspective, and with the appropriate contemporary deployment of cultural-theoretical and technical paradigms. Majority and minority, corresponding as they do to the historical and technical sweep from disciplinary to control societies, and from the spectacular to the informatic, present an ideal model for this analysis.

This is not to say, however, that the prospective counter-tactics set out through the concept of minority in this thesis are total or exhaustive. Establishing the contemporary form of majority and the corresponding development of control are the (relatively) straightforward parts of the equation. In this work I set out a number of basic principles, corresponding to Deleuze and Guattari's original characteristics of minor literature as established in *Kafka*. The digital sense of noise as nonexistent, irrelevant or negligibly-important information at the related levels of code, narrative and visuality; the way in which, through its relation to a majority that is defined by efficient coding, the production of exhaustive algorithms and the feedback loop of demographic grouping and targeting, this noise become necessarily political through its execution; the alignment of scarcity of talent with technical virtuosity. Each of these principles presents a breadth of possible modes of deployment, as evidenced by the diversity of examples and prospective tactics for practice and theory set out through this thesis. In addition, each of these principles lends itself to expansion and development in the ongoing production and theorisation of counter-practice in the control era. It must be noted, however, that to claim any minor tactic or principle as total or definitive is to attach to it a degree of majority or spectacle that is entirely incompatible with the modes of theory and practice that are required today. Lovink and Schneider argue that there is nothing spectacular about the contemporary forms

of majority, but alongside this claim it must be noted that there is in fact a constant spectacle that overlays majority at the cultural level, appearing in the form of ever-improving visuals, ever-more audacious set-pieces (and the ever-decreasing importance of the passages between them) and ever-more executive narrative. To address this spectacle through spectacular theoretical claims or modes of counter-practice is to address only the surface layer of the control-era major, while to replace or intermediate this spectacle with subtle processes, while at the same time addressing the subtle informatic processes that underpin it, is to act upon the control-era major as the complete system that it presents itself as. This is the principle that lies at the heart of this thesis, and in the end it is the single most significant prospect articulated within it.

Appendix

{Plot:<
Pound shop across the road burned down twice before while waiting, but after a few days, as if nothing happened. People who work there swarm around with customers, move children and boxes; of rubber gloves; of cap guns; of 100 toy soldiers, each with equal fervour. Others stand around in street, clutch foreheads, talk on mobiles, shake heads while ever circulating crowd of additionals hover. Smoke and alarms equally fill street, reach across as far as window, draw people out of surrounding shops. When fire engines and unnecessary ambulances eventually arrive those who stay around take on manner of grave authority; point around and explain, drag bags and kids off to a moderate distance, within earshot, next person steps in to explain what happened, and so on. The whole same thing, twice before now.>
}

///

{Plot:<
After a few days, as if nothing has happened. Shop open again. As with more often than not, fire and smoke damage conspicuous still in places. Stock is same stuff; bags of soldiers; candles that play ‘happy birthday’ in bleeps when lit. Lighting so bright that it “burns” eyes. Offer of no illusion that this building represents anything but pure function, a room dedicated to continually turning over minute quantities of cash for a large number of low-valued objects.>
}

///

{Character development:< Ins. concept<
Wonder: how processes arrive at specific decision to produce many of these items. Given that there has to be a decision to go for the specific item, its subsequent design and manufacture, finally production, packaging and distribution to the relevant places. Uselessness and absolute cheapness of the items should at some point overcome whichever unclear factors motivate initial processes?>>
}

///

{Plot:<
The people who work there always change. After the second time, begin to wonder: are they ones responsible for burning place down? As if logic of such a workplace eventually catches up, cuts through evident need to make money and inevitability of job or nothing. Moved to at least try and make a dent. After a few days it is always as if nothing happened, though. If they died, they died in vain.>
}

///

{Character development:< Flashback:<

Gazing out of window at smoke and motion, think about wanting to be detective when younger. Sit by the window with notebook and pen, look at house across road with Fisher Price binoculars, note down everything that goes on. That house always empty, only things that ever happened when people would come to look around it: potential buyers; builders; decorators come to do some work. Still, write down everything they did, sometimes follow with elaborated comment such as ‘very suspicious’ or similar. Invent cases. They are of some sinister agency or other; carry out secret instructions in the house, in the suburb. Possibility that really *was* what was happening. No idea.>
}

///

{Character development:< Flashback:<
Around the same time, began noticing bits of metal punched into ground. Along routes to school or town centre began to spot them; Stainless steel, and gave impression through density that something was stored inside it. Some data. Around each bolt a six-inch circle in orange paint, and a number between 100 and 200. At the time, knew it had to correspond to some kind of code, or else part of a series that Plotted coordinates. By using A-Z, went around in search of them. Find them all, Plot on map, look for patterns. Never any kind of order, at least within tiny extension of the city, but soon came to realise. That they weren’t coordinates but code. The city literally spreading by tiny increments. Tried to ask parents about this, and teachers, but they were either confused or indifferent. Stopped in end, other things took hold of attention.>
}

///

{Plot:< Character development:<
Now. Staring out of the window wondering for the first time in years if some kind of function regulates actual spaces like this, comes in to play as soon as alarms go off, sirens sound, and returns functionality; elimination and replacement of drones and minimisation of lost stock.>>
}

///

{<Plot: first reversal:
This was the first day I ever went downstairs to find someone hadn’t been looking through my bins.>
}

///

{Character development:< Plot:< Foreshadowing:<
In Dreams constantly shift across body of details. Tired of searching through what appears significant brain takes charge and goes over through the photographs of what

seems the otherwise marginal. Back to what everything points towards being the start.>>>
}

///

{GoTo:noise<
Before I even have time to be sure, I feel I know exactly what it is I'm looking at.

///

Down in the grass, indenting the striated surface that the huge amount of blades present, standing out from the body of rustling, reflective green strongly through a change in indent and shading; still connected by a sliver of scalp and ginger fur, curved around like cones opened on one side there lies a pair of cat's ears. Definitely not the work of bird or fox; no trace of rest of cat, no blood or sign of struggle. Excision perfectly smooth and symmetrical, as if done with purpose and tools. Can only be the work of a human hand.

///

The countryside is full of nonsense. It's something that seems to spread as you get further from the city. Earlier, sitting in a café I read an article in the local paper through about a serial killer who preys on domestic pets in the area. Within hours of this I find myself here, standing in the middle of a field staring at a severed feline scalp.

///

Last year police pulled the torso of a child out of the river, naming it 'Adam' due to the impossibility of identifying it. They were able to trace where he was from only through soil traces carried in his bones, locating him as Nigerian, but the purpose, course of events and people involved in this de-limbed torso finding its way into a river on an entirely different continent are still unknown. The post-mortem revealed that he had only a few days worth of local food and pollen in his system, along with ingredients possibly comprising some kind of potion, possibly used in some form of "ritual magic".>
}

///

{int.Dream:<
Same shop but totally different to day, winter twilight lighting (4 o'clock) instead of harsh brightness of the summer afternoon sunlight (1 o'clock), harsh lights still burn out from inside but less so. Track around inside but with jumps to same scale and perspective of looking from window. Constant shift between first and third person.>
}

///

{Dream:<Foreshadowing:<
Not the centre of attention, the blur of customers and children and vacated stock, but zooming in incrementally, still frames, into corner, into back of shop, behind smoke, behind counter that covers back, all in red, black sunglasses, mobile phone is red, measured look directly onto the lens, time slows to the inch, my mouth open but no air to shift, dull ache in the lungs but no pain wake up.>>
}

///

{Plot:<
Going out to buy milk and paper, bank on corner vandalised. Windows smashed, door coated in bright red acrylic paint, slogans daubed all over walls.
'banks=debt=slavery=death'. No more than ten minutes later, walking back past, damage almost entirely gone. Slogans remain, but windows and door fixed, gummy acrylic from door cleaned, overhanging tree from next door trimmed back. Seems no attempt to even begin on walls. A neighbour comes out of house, starts trying to clean it himself, taking to wall with bleach. Someone quickly comes out of bank, tries to send him away. Evident disagreement. After lengthy period of remonstration, say five minutes, hands raised, cheeks reddened, the volunteer leaves, almost in tears, other man goes back inside, straightens tie, checks back through the glass of the door, shuts it.>
}

///

{Plot:<Character development:<
Walking past, as slowly as possible to maximise data taken in data regarding guerrilla cleanup operation, it becomes obvious that suit and glasses-wearing man inside the building switches attention from talking on mobile phone to staring directly back. Past the building and back on my road almost straight away, connections between bank and shop, and man in the bank and the briefly-seen man, the whole thing and the Dream.>>
}

///

{Plot:<
Into house, red telephone on hall table is ringing, its bell and even the vibrations given off along table it sits on made excruciatingly loud by necessity not to answer it. Heavy-eyed but over-awake, impossible to actually close eyes and sleep. Phone still ringing. Television; wrong time of day to offer any distraction, only the constant reminder that it is weekend and afternoon, time with no routine. Checking post for second time today, nothing, leads again to wondering. Letters due, bank statements, bills. Starting to make sense that there's been nothing for days. Wonder if post is getting as far as postman, or being picked up at more central point, depot or something. Still, always the phone, Possible to answer that, solve something maybe. Will still be ringing in a couple of hours when arriving back from somewhere. Hasn't stopped for days. Maybe see what man in bank has got to say about it. After two hours with the ringing, walk out of the front door again and, full of purpose, go to end

of road. Everyone is gone. Building is spotless and fully repaired. Idea; try to withdraw some cash from hole in the wall. To surprise, am able to>
}

///

{GoTo: noise<
The sun's glare on the grass is starting to get less sharp and white now, it must be getting on. I feel like time passes far slower when I'm out here, but I'm sure it doesn't. I really hate wearing watches, and my phone battery ran out this morning. I left in too much of a hurry to pack a charger, and I've yet to come across anywhere I can buy either round here; everyone seems completely shut away, staring out of their little boxes around the village, if you can call it that, more a collection of little houses with a post office/general store and a church, silently occupying space. Asking for any kind of help seems impossible.

///

It's starting to get cold too, the lack of shit clogging up the air must make the temperature much more variable, especially when it's a clear day. This is all speculation, obviously, like the time thing; I've never lived a day outside the city or its suburbs, and there it's hard to spend that much time outdoors. I'm going to have to stay the night; God knows how I'm going to get the car fixed now. There were rooms advertised where I ate breakfast, but the place was just weird, full of isolated hostility. My sister told me a story once, about when she was at university and fell asleep on an inter-city bus. She ended up at the last stop, some tiny coastal village, and had to check into the local guesthouse to wait for the first bus the next morning. Nothing actually happened, but she was adamant that there were people all around her room, inside the house and outside the window, just crowding around all night whispering and scratching about, but she couldn't see anyone directly. She spent the entire night on the phone to a friend, terrified, but left in the morning without incident. She showed me a video she took a while later when, back in the area with friends for a camping trip they stumbled across a group of people all parading around a bonfire, singing, beating drums, dressed in animal costumes and drinking out of a big horn thing they were passing around. Really weird, but she had it right there on video.

///

I don't know if the cold is due to the weather, my capacity to scare myself with memories, or something else altogether, but I know should turn back, and try to get moving again some other way, get out of this useless place, but for some reason this cat thing is keeping me from doing so. I'm probably just desperate to find reasons to avoid going back to where the people are, but I know I can't do one without the other.

///

Looking into the near distance, towards the woods that lead round to further up the main road, I see something that locks my attention, removing everything else from even the periphery; arriving at the area on autopilot, without a single thought filling up my mind except arriving, of being able to dispel what it is I think I saw, I find myself once again staring down, into what is now almost reflection-free grass, at a single, black, disembodied tail.

///

The air takes on a metallic, pixellated edge, breathing seems to become difficult but isn't really, not impossible like the very end of a bad Dream. Regardless there is an idea neatly placed now that, having been nagging, hanging around the edges since the discovery of the ears, is now irresistible. I know the tail belongs to a different cat to the ears, and just like the old days I know that the arrangement must be somehow significant. I head towards the woods, where the setting sun is maybe just managing to illuminate a set of teeth poking up out of the grass.>

}

///

{Character Development:<
Head into town, hands deep in pockets past bikes riding round in circles by post office, ignore clear temptation to go inside and make inquiries about mail. Call at friend's house, drink cups of tea, watch television, play some video games, have conversations, fall into happily belief of everything being just a coincidence, not even a particularly notable one if without the constantly ringing telephone. That things get repaired fast all the time, especially in city centres where the rent is so high, and the mail is down to a strike or delays or anything. Saturday after all, every excuse to sit around in good company, get in good mood and go out later on for a few drinks.>
}

///

{Plot:<
Hours later walk through front door of house and answer the telephone.>
}

///

{Plot:<
On picking up, horrific, clanging static followed by silence, line going dead. Suppose there must have been someone or some bot there in order to hang up at point of answer, immediately phone rings again. Pick up and, again, there is static, silence the line goes dead. Hang up. Phone rings again. 3.30 am. Take the phone off hook. Mobile rings. Put the phone back on hook. Rings. No chance of sleep even drunk, and no chance of finding anything outside with which to occupy. Only the ringing until morning. After an initial period say ten repeats of ringing and picking up then hanging up, automatically pick up the handset each time the result always the same. Sat at side of hall table open the nearest readable thing, an A-Z, and begin intently looking through it, like when was younger with the metal bolts but with a much bigger space to cover and nothing to look for. At some point turn on the radio and listen to phone-in about ghost sightings, feel much better again for the knowledge that other people are still awake, regardless of what is keeping them that way.>
}

///

{Plot<: second reversal:<
Eventually somehow fall asleep throughout this period, wake up with a conviction, having arrived unheralded from somewhere during the night, to find out exactly what is happening.>>>>>>>>>>}
}

///

{GoTo:noise<
As soon as I came across the village it was obvious for a second that I should never have gone on, instead turning back and walking the other way until I could find a motorway, even if it took all day, and on to the motorway and along until I could find a phone box or services or another village, bigger and less isolated. Ended up doing exactly the opposite, finding my way deeper and deeper into the woods, further towards the opposite of what would have been the better thing to do.

///

I'm walking slowly now, seems to be no suggestion that I'm moving any closer to solving any of the problems I set out to this afternoon. Don't know why I'm still going forward, I should have turned back for the second time when I got to the edge of the trees. There's enough cash in the boot of the car, maybe I should have just got some of it out and waved it around in the village until someone could manage to try and be helpful. I'm sure it would have worked sooner rather than later even around here. At least so I could get to use a telephone that worked. The only one I could find before was completely broken, the dial tone was there but then it screeched some kind of horrible feedback and went dead. I have no idea why I didn't turn back then actually, as soon as I realised I was of no interest and nor was anyone going to do the slightest thing to help me I should have just gone back to the car, at least there I was near something familiar even if I wasn't going to be going anywhere fast.

///

Every now and then I think I keep seeing more bits of animals. I'm not sure whether they really are or not, could just be sticks or bits of plant. It's getting really dark by now and I have to keep moving forward, no time to stop and look. At any rate, the certainty of any more, especially to the tune of the amount I already might have passed would have to change it from any old coincidence to something with and underlying method and purpose behind it, something I couldn't possibly understand. No time for that any more.

///

I can't remember when I last went so long without knowing what the time is.

///

The trees are starting to rustle in ways that add even more weight to thoughts about being in the woods and away from the city and lost and having no contact with anyone or any map or GPS. These woods really didn't look particularly big from the outside, and I'm sure there's a motorway up ahead somewhere. It sounds like there is,

and I'm sure there's no way an area can go on for much longer than this being so remote. In fact, I can see some light up ahead, an orange glow, clearly artificial. It must be the road, and the end of the woods. Pressing forward, the ground underfoot begins feeling more solid, less the damped slight instability of soil and sticks and pebbles and more the hard smoothness of concrete or tarmac. The light becomes more intense as I get closer, now everything is a solid bright orange. Orange trees with orange leaves. Orange ground now with perfectly visible orange fur and bones. Patches of orange sky.

///

It's started to snow orange. What month is it? The gaps between the trees take on a painful brightness in relation to the almost complete dark before. I have to stop abruptly to avoid falling as the ground falls away into a sharp incline, concreted and descending some ten or fifteen feet. I overlook from the edge an area comprising of about ten meters square of concrete, with a single streetlamp protruding up from the centre, set into the ground and with dense wood continuing off from each side of it. Everything is now filtered by the intensity of artificial light.

///

///

It's started to snow orange. What month is it? The gaps between the trees take on a painful brightness in relation to the almost complete dark before. I have to stop abruptly to avoid falling as the ground falls away into a sharp incline, concreted and descending some ten or fifteen feet. I overlook from the edge an area comprising of about ten meters square of concrete, with a single streetlamp protruding up from the centre, set into the ground and with dense wood continuing off from each side of it. Everything is now filtered by the intense artificial light. At the bottom of the streetlamp is a large waste bin, of the dumpster type used for large deposits of rubbish, and at the bottom of that sits a man, just about, filthy with hair that is both

short and matted, dressed in the shredded rags of what looks like a three-piece suit, playing some kind of flute. He seems completely oblivious to the fact that I have stumbled into this scene directly in front of him, sending rocks and other debris scuttling down the slope in front of him as I stopped.

///

Phone rings. The tone is horribly mangled and grating, metal on metal combined with original tone. I look at it, the battery is still dead. The man's head begins to rise in slow motion. Towards me, and his face is that of any number of the people I saw earlier in the village.>
}

///

{Plot:< Setting:<
Centre on a Saturday, not the major centre but one of the satellites. Heaving and patchwork as ever. Street is literally clogged up with people, progress a bumpy shuffle.>>
}

///

{Character development:<
A flurry of white fur and feathers surrounds a van backed up halfway across the pavement, looks like unloading a stock of live animals for the pet shop. Immediately in way three-square stack of rabbit units up against the front window. Each a distinct cell of calm, occupants wandering minutely as the confines of the environment allows. Noses twitch constantly, exactly the same as any rabbit ever seen in life; inconceivable that the species could ever have existed outside a world of people and built environments, caring owners and packed food. Appear incapable of even expressing discomfort. Staring into one of the units, receive back only impassive look. Suppose no different to the area of background previously visible from cage.>
}

///

{Character development:<setting:<
While still in process of being forced to choose between walking right out into road past the rear of the van, squeezing past cars that themselves are trying to find the fastest solution, or to waiting for delivery men to finish current job and walk on. At this point they are struggling under the dead weight of an evidently sedated boa constrictor, heaving and sweating and coiled in its flexible length, desperately trying to avoid the arrangements of other boxes, cages and tanks that each bear a specific patient cargo.>>
}

///

{GoTo:noise<
Running blindly through the woods the orange fades, but after a few minutes smacking into trees getting lashed by branches and stumbling over rocks and roots there is another light up ahead. Out into the open I am on the edge of the village I left earlier, at least it looks the same, but something is different, it is in the wrong place, even if I've got no map or compass and my sense of direction is next to nil, no mobile phone, computer, signposts. I could be anywhere. I'm sure there's no way I could be back here, not so quickly. Something else is different too. I can't find the road that led to the car, it just doesn't seem to be there. Other things that seem familiar and indicate the right way, the post office and the café and certain houses are here, but they seem to be in the wrong order. The snow's falling heavily now but it's not really like snow at all.

///

///

I'm inside a house myself now, I'm can't really remember how I got in here. How long have I been walking around? I tried walking towards where I thought the road had to be based on the geography behind the town, but there was this house in the way, a house, definitely not a cabin or a shack, but still its almost pitch black in here, and I've got matches but not too many. I thought I'd just walk as straight ahead as I could once I got inside and I'd reach a back wall, maybe a back door or window there, and get out and be heading towards the car and the end, but it wound around a bit and now it just keeps going on.

///

I can't find any light switches anywhere, underfoot feels crunchy just like in the woods.

This house seems to have loads of mirrors but no windows. I don't even remember if I saw any on the outside, I don't remember anything about the outside actually, found my way in here sure I was going at least in the direction I should be.>
}

///

{Plot:< Ins.concept<
To think that for a while we thought walking in the city was somehow the way to stand against this stuff. That working over the physical geography would somehow connect to the unworkable events that it both contains and brings about. Finally given a reason to try it, know how an idea becomes obsoleted.>

}

///

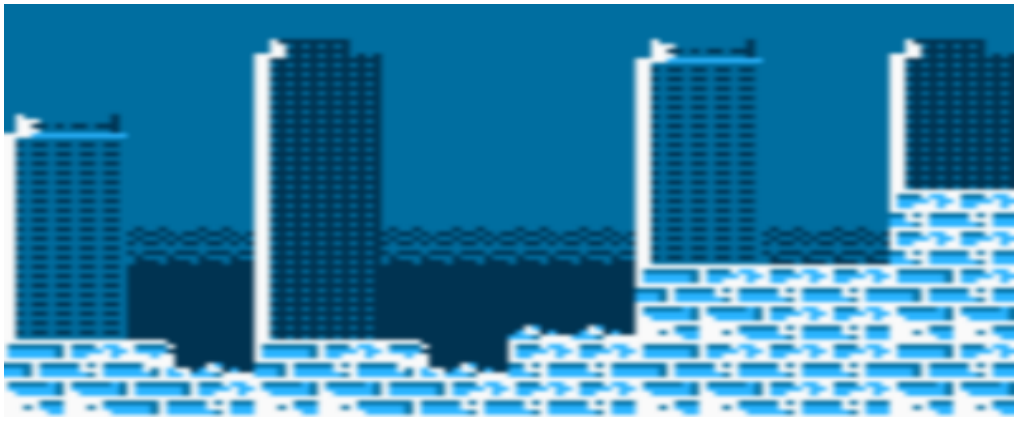
{Plot:<Setting:<Ins.concept<
The centre now, absolutely empty and still at the visible level. Opposite of what it is meant to be, the driving heart of a machine that never stops. Blocks of tall, dark, buildings, made out of glass but impossible to see into. Currently home to absolutely no people, no activity. The only movement, barring occasional lost people in search of elsewhere, comes from the constant automated whirring of cameras with nothing to observe. There are a few newsagents and coffee chains dotted around, but they are all closed, bins pulled to the doors.>
}

{Plot:<
A distant bell reminds me that it is Sunday I have to go to work tomorrow.>
}

{Merge: Plot+Character development:<
Bag is really starting to shoulder ache now, weighed down with the results of earlier morning work, breaking bricks in half and transferring paint from pot to smaller pot. First though given to that for several hours of walking. As with yesterday afternoon, stood out in the open air with the outdoors to occupy mind. Nothing of the desire left to act out anything, to go through with forcing anything to happen out of turn. The whole way here, through the streets around my house full of people, bumping into familiar faces.>
}

///

{Plot:<
Take half-brick out of my bag and just stand, holding it. Feel how neatly erasable damage or action can be, errors overwritten in the fabric of the town as if by repair algorithm. Where are the programmers? Spend at least 30 mins trying to find a bin in this hub, less a heart than hardware, to stuff the bag, contents and all, into it.>
}



///

{GoTo:noise>
I think someone else is in here with me, but there are no noises, no snapping twigs or creaking boards or doors to suggest it. There aren't even doors or boards as far as I can tell. I can see my breath even in here, it looks orange in the match light. I wonder if it's still snowing outside, I wonder how long I've been wandering around in here, I keep going but I don't know why. I dropped my phone some time, it was dead anyway, I tried to use it for light before the matches.

///

I'm exhausted, and I feel like I've been wandering for hours and hours. Is that possible? If I don't find my way out I might have to sit down and rest. What will happen if I go to sleep? Will everything be different in the morning, or will there even be a morning. I feel like I feel like I've been wandering for days, but >
}

{Plot: climax:<
In an opening past one of the biggest of the identical buildings finally appears to be a bin. Swing open the lid to find a hunched, grey, but clearly living human of indeterminate sex and age inside it. Dressed in suit. They shift, eyes adjust to light, there's two of them in there, eyes open and fixed on me but uttering nothing, to reveal another two further occupying the space beyond. Massive space spreading back and back into depths. Amongst the objects strewn around are laptop computers, briefcases, palmpilots, wheelie chairs, potted plants, water coolers. No challenge, tirade, abuse, begging, stories, anything at all. A stare and a model of overloaded design, referents of unique order smashed into an alternative arrangement through excessive use. Door opens far back: Suit, mobile phone, glasses, running. Before end look on screens but not sure what's there, the shop is there, the bank, everything else>

///

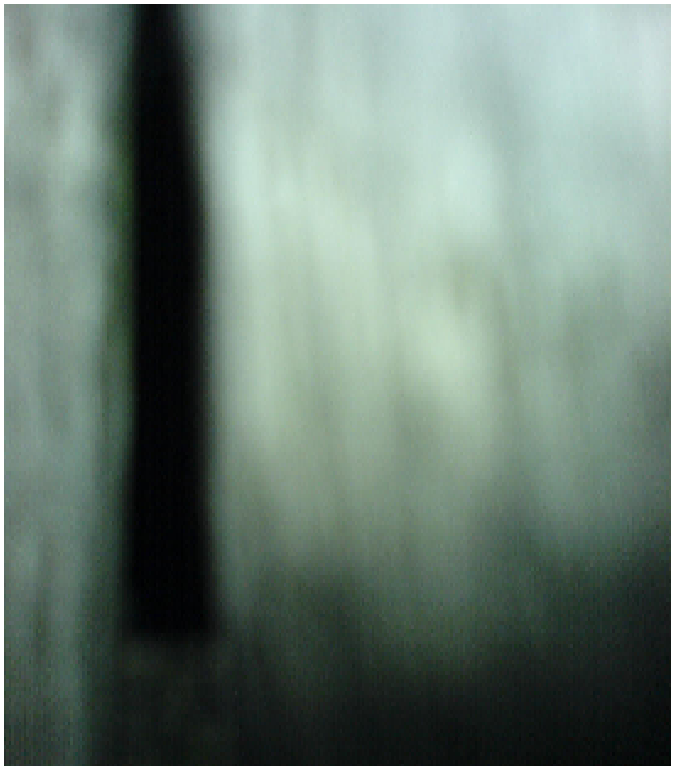
{GoTo:noise:<
I'd started counting my steps and turns after a while as a way to at least try and map out where I am within this building, but I don't have any way to record them except in my head so I'm not sure what the point of that is. Every 3 turns I think there is a corridor, then 3 more short turns then a corridor and so on, but I wasn't counting at the beginning so I'm not sure about that, and after 10 sets of turns and corridors and

when I get to the corridor after the 10th the corridor seems longer and there's light up ahead. I must have found my way into a different area some way or another, by all this random wandering. I'm sure I must have been going in circles at least a bit, but up ahead there's a glow, the green-blue fallout from some kind of hard light source, fluorescent strip lights or something. It could be the outside, or at least it could be a change. I'll head on quicker than before.

///

The corridor now lit by even dim fixed lighting rather than individual matches seems to be getting narrower. The floor has stopped crunching now, although it's still too dim down there to see what it's like. I can't hear my footsteps at all, I'm just going on towards the light, as if I'm not even putting one foot in front of the other myself.>

///



{{{

{The sky's so blue today, one solid shade all the way up. Few pure white clouds dotted around as always. I think this is the same as lots of other days, but I can't remember much about them. It's definitely the sunny weather now, a summer's day, even though there is no heat and I can never see the sun I know it. I go inside for what seems no more than minute on the clock and when I come back out its completely dark. That always happens! This place is weird, but I can never quite remember getting here.

So now it's a dark bit. These are always after a cut of some kind, like going inside or getting to the end of doing something. In the dark it's all different, as if it's all drawn from a whole different palette. Things aren't even that similar. The rain makes a really loud rustling noise in these bits, even though it's not even raining that hard. I'm not getting wet at all.

I always know there are these things, there's no lack of activity or motivation. I might as well have someone else making me do stuff as far as that kind of thing goes, I just get on with it every time. That's completely normal though isn't it? It's not like people think "I'm going to lift my arm up now" or "I'm going to jump up now" before doing things, the arm or the leg just goes, all the parts in between just happen. Talking to people it's a little bit different, but it's never too open, just the possibility of deciding a bit more what to do.

I never remember if I go to sleep, things just start in the same way that waking up goes, a jump straight into the world being there and, things to do and get on with.}

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